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ABSTRACT

The Studies of Implementation is a three-year, longitudinal investigation focusing on the process by which an innovation is implemented and becomes a pattern of individualized schooling. An examination is made of the behavior of 13 elementary schools during the entire change process, which includes the adoption, implementation, and adaptation of an innovation. The innovation that all 13 schools chose to implement is the Instructional Programming Model (IPM), the central concept of individually guided education. Two other innovations were chosen by some of the schools. The purpose of this technical report is to present the first-year findings related to one research question: What factors affect the decision to adopt an innovation? The report is divided into five chapters. Chapter 1 presents an overview of the research, and chapter 2 presents a review of the literature related to the change process. Chapter 3 describes the methodology used to study the adoption process in the research sites. Chapter 4 presents data in the form of vignettes that chronologically narrate the adoption process in each of the sites. Chapter 5 analyzes and interprets the data and presents conclusions and implications. (Author/IRT)

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Technical Report No. 529

THE ADOPTION OF AN INNOVATION IN SCHOOLS

by

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Report from the Project on
Studies of the Implementation of Individualized Schooling

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- conducting and synthesizing research to clarify the processes of school-age children's learning and development
- conducting and synthesizing research to clarify effective approaches to teaching students basic skills and concepts
- developing and demonstrating improved instructional strategies, processes, and materials for students, teachers, and school administrators
- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

The Wisconsin Research and Development Center is supported with funds from the National Institute of Education and the University of Wisconsin.

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CENTER FOR INDIVIDUALIZED SCHOOLING

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ABSTRACT

The Studies of Implementation is a 3-year longitudinal investigation of planned educational change. Specifically, the focus of the research is the process by which an innovation is implemented into and becomes a pattern of individualized schooling. The research aims to identify those factors or conditions that promote or retard change and relate them to the modifications they foster.

The Studies of Implementation work group is documenting and analyzing the innovative behavior of 13 elementary schools which have chosen the course of planned educational change. An examination is being made of their behavior during the entire change process which includes the adoption, implementation, and adaptation of an innovation. The instructional innovation which all 13 schools have chosen to implement is the Instructional Programming Model (IPM). Ten of the schools have also adopted the organizational innovation, Individually Guided Education (IGE), of which the IPM is the central concept. The three other sites have adopted Developing Mathematical Processes (DMP), a curricular expression of the IPM designed at the Wisconsin Research and Development Center for Individualized Schooling.

Four research questions are guiding this study:

1. What factors affect the decision to adopt an innovation (the IPM)?

2. What factors affect the rate of implementation of an innovation (the IPM)?

3. What factors affect the adapatation of an innovation (the IPM)?

4. What factors affect the decision to abandon or replace the innovation (the IPM)?

The purpose of this technical report is to present the first-year findings related to research question 1: What factors affect the decision to adopt an innovation? Interviews were conducted with personnel at each site to collect information about the adoption process. A description and interpretation of the interview data are contained in this technical report.

This technical report, which explores the adoption process in the 13 sites, contains 5 chapters. Chapter I presents an overview of the research and Chapter II presents a review of the literature related to the change process with special attention given to the research on adoption. Chapter III describes the methodology used to study the adoption process in the research sites. Chapter IV presents the data in the form of vignettes which chronologically narrate the adoption process in each of the sites. In Chapter V, the data presented in the vignettes are analyzed and interpreted. Chapter V also contains conclusions about the adoption process and implications for continued research.

CHAPTER I

INTRODUCTION

The Studies of Implementation is a 3-year longitudinal investigation of planned educational change. Specifically, the focus of the research is the process by which an innovation is implemented into and becomes a pattern of individualized schooling. The research aims to identify those factors or conditions that promote or retard change and relate them to the modifications they foster.

The Studies of Implementation work group is documenting and analyzing the innovative behavior of 13 elementary schools which have chosen a course of planned educational change. An examination is being made of their behavior during the entire change process which includes the adoption, implementation, and adaptation of an innovation. The instructional innovation which all 13 schools have chosen to implement is the Instructional Programming Model (IPM). Ten of the schools have also adopted the organizational innovation, Individually Guided Education (IGE), of which the IPM is the central concept. The three other sites have adopted Developing Mathematical Processes (DMP), a curricular expression of the IPM designed at the Wisconsin Research and Development Center for Individualized Schooling.

Four research questions are guiding this study:

1. What factors affect the decision to adopt an innovation (the IPM)?

2. What factors affect the rate of implementation of an innovation (the IPM)?

3. What factors affect the adaptation of an innovation (the IPM)?

4. What factors affect the decision to abandon or replace the innovation (the IPM)?

A detailed description of the 13 schools and the innovation, i.e., the IPM, may be found in Technical Report 494 (Davis, Klenke, & Barrows, 1979).

A review of the change literature revealed several shortcomings in prior research on planned educational change. According to Davis et al. (1979), these shortcomings are:

1. The design of most studies has been cross-sectional, despite the intrinsically dynamic nature of the phenomenon being investigated.

2. The emphasis of studies has been predominantly directed toward precipitating change rather than studying it.

3. Most studies have focused exclusively upon the early or adoptive phase of the change process to the neglect of all later phases.

4. Most studies have been restricted to the direct user-system, thereby assuring a closed-system analysis of a phenomenon most frequently described as being widely susceptible to influences from the external environment.

5. Most studies are primarily post-hoc in that their primary source of data has been the "after-the-fact" perceptions of users.

6. Most studies have been oriented toward documenting the fidelity of implementation (that is, the extent to which actual use corresponds to intended use) and thus, have avoided the more complex task of explaining how and why innovations are adopted.

In designing this research, the work group attempted to overcome the shortcomings of other studies. To allow for the essentially dynamic nature of the change process, to permit analysis at all phases of the change process, and to enable documentation of the process as it occurred, a longitudinal study was designed. An open-ended methodological stance, which would allow for the flexibility to explore factors outside the user-system and account for adaptation in the innovation was deemed appropriate. A combination of quantitative and qualitative methods was selected.

In sum, the purpose of this research is to identify and interrelate those factors which influence the planned change process in schools. Through the use of field and quantitative methods, the innovative behavior of 13 elementary schools is being documented. All 13 schools have elected to adopt an innovation called the Instructional Programming Model (IPM).

The purpose of this technical report is to present the first-year findings related to research question 1: What factors affect the decision to adopt an innovation?[1] Interviews were conducted with personnel at each site to collect information about the adoption process. Every attempt was made to interview individuals who were present at the time of adoption. Persons occupying varying roles within and outside the school (i.e., teachers, principals, parents, retired educators, and central office staff) were interviewed to secure the full array of potential perceptions. A description and interpretation of these data are contained in this technical report.

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[1] Year-one findings related to research questions 2, 3, and 4 will be presented in the forthcoming technical report entitled "The Descriptive Report of Year-One Findings/Implementation."

Background of the Adoption of Innovations in Schools

Numerous studies of the adoption of educational innovations have been conducted. Most of these studies by design have been one-shot case studies and have produced very specific findings about the factors that influenced the adoption of a particular innovation. Further, few studies have attempted to relate the events and influences which surrounded the adoption process to the subsequent use of the innovation.

The research being conducted by the Studies of Implementation work group proposes to study the entire spectrum of the planned change process from adoption through implementation. Events and influences surrounding adoption of the innovation will be documented and later linked to the subsequent implementation of the innovation.

Definition of Terms

Even cursory examination of the literature on planned educational change reveals that there is a wide variation in the meaning of key terms. Occasionally the key terms are explicitly specified, but generally they are left undefined. More often than not, the reader must infer meaning by careful reading and interpretation from the context.

To remove the onus from the reader and to avoid possible confusion in the meanings of the key terms for this study will be defined below. These definitions will be used consistently throughout this technical report and in the subsequent writings of the Studies of Implementation work group.

The definition of terms should be consistent with the assumptions of the research and be reflected in the methodological stance of the project. The underlying assumptions of this research are:

1. The acceptance and use of an innovation is a set of activities and/or events and occurs over time.

2. The process of change is phasic. However, progress through phases does not necessarily proceed at a constant rate nor does progress through the phases necessarily occur in a linear sequence.

3. The process of change can be observed and documented.

These assumptions about the change process have methodological implications. They suggest that data should be collected repeatedly over time. Further, they imply the need to gather information about the use as well as the acceptance of the innovation. And, finally, they suggest an open-ended methodological stance which allows for the discovery of the phases and the nature of the sequence of the phases in the change process. Therefore, the work group has chosen a longitudinal, qualitative study as its methodological approach.

The eight key terms which require definition for this study are change, planned changed, innovation, the adoption process, the implementation process, adaptation, modification, and the change process.

Change. For our writing and conceptual purposes, we accept the definition of change suggested by Miles (1964): "[an] alteration in the goals, structure, or processes of a system" (p. 13). This definition allows change to take a variety of forms ranging from a relatively superficial alteration to a major reorientation in the value structure of a system. Further, the definition focuses on the institution, not on individuals. Under this definition, the school may be conceived of as a system with interdependent parts, a common goal orientation, a set of institutionalized behaviors, and a feedback mechanism which communicates the consequences of the system's actions.

Planned Change. Limiting Miles's definition to include only purposive behavior, we define planned change as "a deliberate alteration in the goals, structure, or processes of a system."

Innovation. Miles's (1964) definition of innovation incorporates the three criteria which we consider to be essential in delineating the term--intention, uniqueness, and specificity. Thus, we have accepted his definition of innovation: "A deliberate, novel, specific change, which is thought to be more efficacious in accomplishing the goals of a system" (p. 14).

Adoption Process. We define the adoption process as those activities which precede the actual use of an innovation. The adoption process may begin when members of a system become aware of a problem and begin to seek a solution. Or, the adoption process may begin when members of a system become aware of an innovation and want to learn more about it. The adoption process includes consideration of the merits of an innovation and the actual decision to use the innovation. The adoption process may or may not include a field test or trial period and ends as the innovation is applied to the client group.

Implementation Process. The implementation process begins when the innovation is actually put into effect. By our definition, implementation activities occur after the adoption process is completed, and implementation is synonymous with use.

Adaptation. As defined by the Studies of Implementation work group, adaptation includes those activities that either modify the innovation to meet environmental conditions or modify the system to meet the requirements of the innovation. Adaptations may occur either during the adoption and/or the implementation processes and are the result of the interaction between the system and the innovation.

Modification. A discrete and definable alteration in the essential criteria of an innovation.

The Change Process. The change process includes adoption, implementation, and adaptation and results in an alteration of the goals, structure, or processes of a system. Figure 1 graphically represents the process.

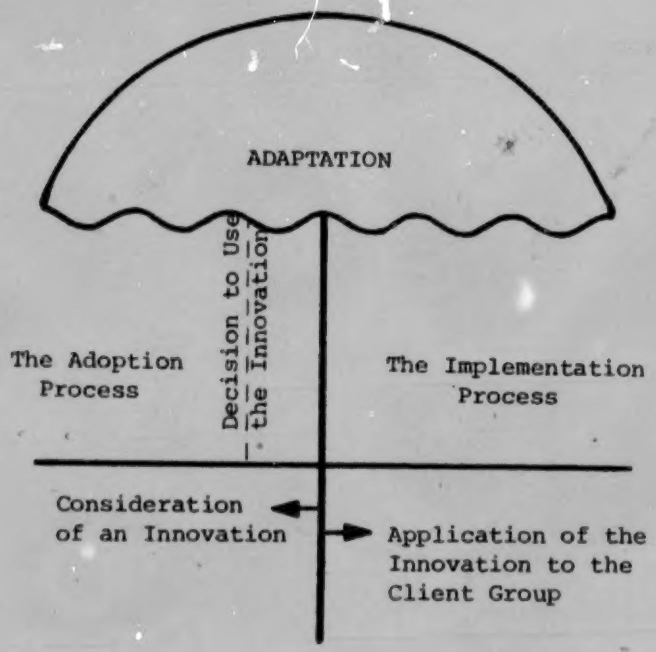

ADAPTATION
Decision to Use the Innovation
The Adoption Process
The Implementation Process
Consideration of an Innovation
Application of the Innovation to the Client Group

Figure 1. The change process.

As Figure 1 suggests, the change process is composed of two interrelated processes: the adoption process and the implementation process. The underlying dimension of this definition is time. Whether or not an activity is an adoption or an implementation event depends on when the activity occurs, not necessarily on the nature of the activity. Adaptation, as shown in Figure 1, may occur at any time in the change process and is depicted as an umbrella overshadowing the total process.

As noted in the assumptions, we recognize that the adoption and implementation processes are composed of phases. At this time, however, our model is still in its formative stage and Figure 1 does not specify these phases. A detailed specification of the phases, their exact nature, and their relationships to one another will evolve from our continued research.

Organization of This Technical Report

This technical report, which explores the adoption process in the 13 sites, will contain 5 chapters. Chapter I has presented an overview of the Studies of Implementation research and an introduction to this report. Chapter II will present a review of the literature related to the change process with special attention given to the research on adoption. Chapter III will describe the methodology used to study the adoption process in the research sites. Chapter IV will present the data in the form of brief vignettes which chronologically narrate the adoption process in each of the sites. In Chapter V, the data presented in the vignettes will be analyzed and interpreted. Chapter V also contains conclusions about the adoption process and implications for continued research.

CHAPTER II

REVIEW OF THE LITERATURE

This review of the literature is intended to accomplish four purposes. First, it will establish what is already known about the process by which innovations are adopted. Second, it will indicate the present state of knowledge with respect to the adoption of Individually Guided Education, the innovation in place in 10 of the 13 research sites. Third, the review of literature will inform data collection by suggesting potentially productive areas about which to collect data. Fourth, it will provide a framework for later data analysis.

In order to accomplish these four purposes, relevant literature in three areas will be reviewed. Five general change models and the IGE change model will be presented in an effort to establish what is known about the change process, to inform data collection, and to provide a framework for data analysis. The general adoption literature will be reviewed and this review will contribute to a statement of the accumulated knowledge about the adoption process and the plan for collecting and analyzing the data. Finally, research specifically related to IGE will be explored in order to establish what is already known about IGE and to provide a point of comparison as the data are analyzed.

The Change Models

The literature on change and knowledge utilization in education is replete with models which seek to explain the process of change in individuals, organizations, and systems. The various models are based on different assumptions about the role of participants in the change process, the origin of the proposed change, and the phases preceeding actual use of an innovation. Three widely disseminated models of change, identified by Havelock (1969) as change perspectives, will be presented in order to highlight the diversity in assumptions, origins, and phases. Two synthesis models, Havelock's Linkage Model and the Concerns-Based Adoption Model (CBAM) will also be discussed. Finally, the IGE model of change will be presented. The presentation and discussion of the six models will provide a theoretical framework for thinking about the change process. Innovation adoption is viewed as an integral part of the change process; thus, the discussion of the change models is germane to this research on adoption. Awareness of the various change models will inform data collection and offer a structure for data analysis.

The Problem-Solving Model

The problem-solving model is a user-centered approach to change. The model depicts a sequence of patterned activities which begins with user awareness of a problem and extends to search, selection, and trial of an innovation designed to solve the problem. In Havelock's (1971) words

> Problem solving is usually seen as a patterned sequence of activities beginning with a need, sensed and articulated by the client, which is translated into a problem statement and diagnosis. . .the client-user is then able to conduct a meaningful search and retrieval of ideas and information which can then be used in formulating or selecting the innovation. Finally, the user needs to concern himself with adopting the innovation, trying it out, and evaluating its effectiveness in satisfying his original need (p. 2).

The problem-solving model assumes that the origin of the proposed change comes from the user who has the responsibility for identifying the need to change (see Figure 2). It further assumes that outside resources are not initiators of change but collaborators.

Further, as shown in Figure 2, the primary emphasis of the problem-solving model is development of a solution to meet a felt need. Five of the six stages of the model are adoption activities. Only the last stage, application, is concerned with implementation.

The Social Interaction Model

The social interaction model describes the change process as the diffusion of innovations through informal personal contact. The model, which evolved from the agricultural diffusion literature, rests on several key assumptions. These assumptions, according to Havelock (1971), are

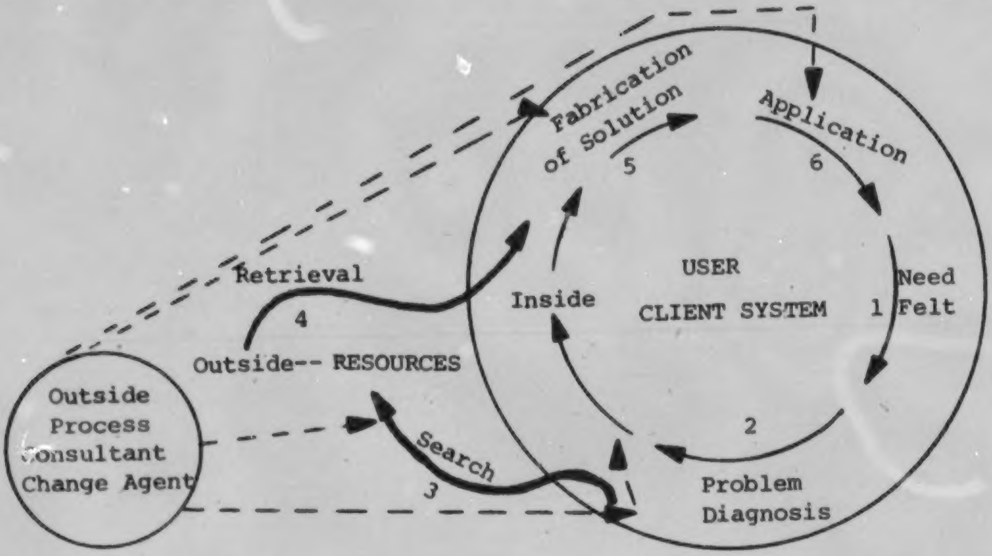

Fabrication of Solution
5
Application
6
Retrieval
4
Inside
USER
CLIENT SYSTEM
Need Felt
1
Outside-- RESOURCES
Outside Process Consultant Change Agent
Search
3
2
Problem Diagnosis

Figure 2. The problem-solver view of the change process.

Note. From R. G. Havelock and M. C. Havelock, Training for change agents. Ann Arbor, Michigan: Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, University of Michigan, 1973, p. 9.

> 1. that the individual user or adopter belongs to a network of social relations which largely influences his adoption behavior;
>
> 2. that his place in the network. . .is a good predictor of his rate of acceptance of new ideas;
>
> 3. that informal personal contact is a vital part of the influence and adoption process;
>
> 4. that group membership and reference group identifications are major predictors of individual adoption (p. 10).

As explained by Zaltman, Florio, and Sikorski (1977), the social interaction process is a loose association among researchers, practitioners, consumers, and disseminators (p. 159). Figure 3 graphically represents this association. Communication between all parties is informal and at least potentially bi-directional. Problems and needs may be informally identified by practitioners and researchers interacting together. Likewise, solutions may be developed and disseminated during informal interactions. Membership in common reference groups and associations allows for the interaction of researchers and practitioners.

In the social interaction model, change is viewed as a multi-stage process. Rogers and Shoemaker (1971) conceptualized the model as having four stages:

1. Knowledge, in which the individual is exposed to the innovation's existence and gains some understanding of how it functions.

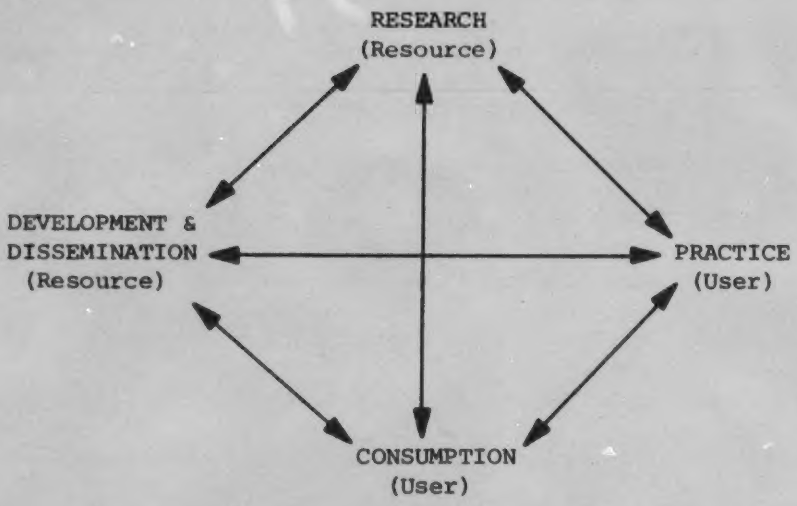

RESEARCH
(Resource)
DEVELOPMENT &
DISSEMINATION
(Resource)
PRACTICE
(User)
CONSUMPTION
(User)

Figure 3. Social interaction model.

Note. From G. Zaltman, D. Florio, and L. Sikorski. *Dynamic educational change*. New York: The Free Press, 1977, p. 159.

2. Persuasion, in which the individual forms a favorable or unfavorable attitude toward the innovation.

3. Decision, in which the individual engages in activities which lead to a choice to adopt or reject the innovation.

4. Confirmation, in which the individual seeks reinforcement for the innovation-decision he has made, but he may reverse his previous decision if exposed to conflicting messages about the innovation.

The social interaction model is essentially a diffusion model and assumes the existence of the innovation which is eventually adopted. It highlights the importance of informal contacts in the spread of new ideas. The four stages of the model, as outlined by Rogers (1962), are all adoption activities. There are no implementation activities specified in this model.

The Research-Development-Diffusion (RD&D) Model

Havelock (1971), describes the main characteristics of the Research-Development-Diffusion (RD&D) Model in these terms:

> First, it assumes that there should be a rational sequence in the evolution and application of an innovation. This sequence should include research, development, and packaging before mass dissemination takes place. Second, it assumes there has to be planning usually on a massive scale over a long time span. Third, it assumes that there has to be a division and coordination of labor. . . . Fourth, it makes the assumption of a more or less pas-

> sive but rational consumer who will accept and adopt the innovation if it is offered to him at the right time and in the right form. Fifth. . .the proponents. . . are willing to accept the fact of high initial development cost prior to any dissemination activity because of the anticipated long-term benefits in efficiency and quality of the innovation and its suitability for mass audience dissemination (p. 10).

This model, which is shown in Figure 4, emphasizes the perspective of the developer of an innovation. The user is seen in a largely passive role, adopting an innovation developed outside the user system to satisfy a need which has also been identified outside the user system.

Four sequential phases are suggested by this model which seeks to aid in bridging the gap between theory and practice (Clark & Guba, 1965). The four phases are:

Phase 1: Research, whose function is to secure knowledge, irrespective of whether it is eventually incorporated into the innovation. Quality, not applicability, is the standard by which the research effort is judged.

Phase 2: Development, which consists of generating, evaluating, and selecting solutions for the problem at hand; and refining the selected innovation in preparation for implementation in the field.

Phase 3: Diffusion, which involves the dissemination and demonstration of the innovation.

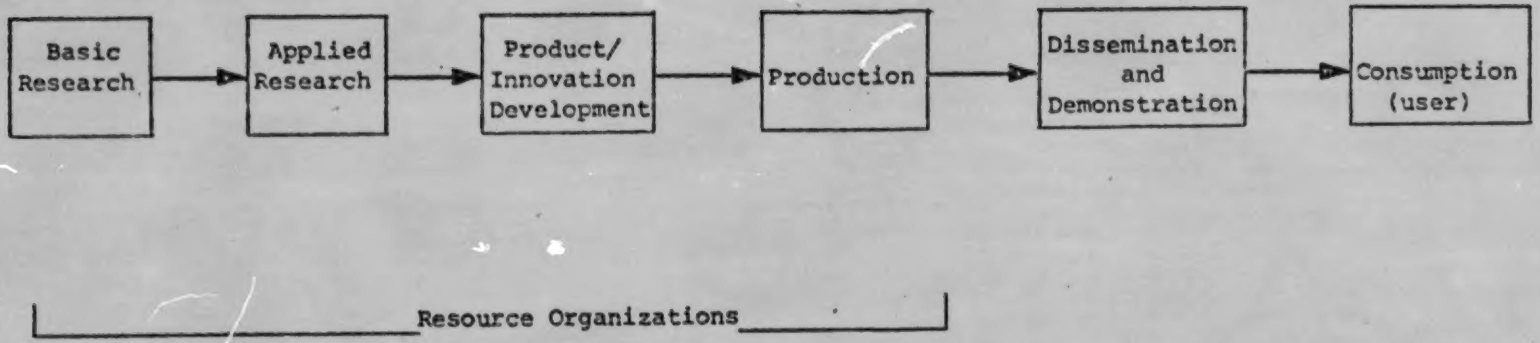

Basic Research
Applied Research
Product/ Innovation Development
Production
Dissemination and Demonstration
Consumption (user)
Resource Organizations

Figure 4. Research, development, and diffusion model.

Note. From G. Zaltman, D. Florio, and L. Sikorski. Dynamic educational change. New York: The Free Press, 1977, p. 158.

Phase 4: Adoption, which was added as it became apparent that many of the diffused changes were not being institutionalized. The adoption stage consists of three components: trial, installation, and institutionalization.

The RD&D Model has two major emphases--innovation development and diffusion. The adoption process in this model includes research, development, diffusion, and the trial component of the adoption phase. Implementation activities occur during the installation and institutionalization components of Clark and Guba's adoption phase.

The Linkage Model

The Linkage Model is a synthesis model developed by Havelock in an attempt to combine the most meritorious traits of the Problem-Solving, Social Interaction, and RD&D Models. While Havelock (1969) viewed the three models as providing ". . .valuable insights and useful guideposts for developing a comprehensive view of the whole, each leaves much to be desired when viewed separately" (pp. 11-12). The unifying concept which Havelock used to combine the strongest features of the models was linkage--i.e., the meaningful relationship between the outside resource system and users.

Figure 5 graphically represents the linkage model and demonstrates the elements adopted from each of its three parent models. The internal problem-solving cycle bears strong resemblance to the problem-solving model while the resource system behavior approximates that described in the RD&D model. The problem and solution

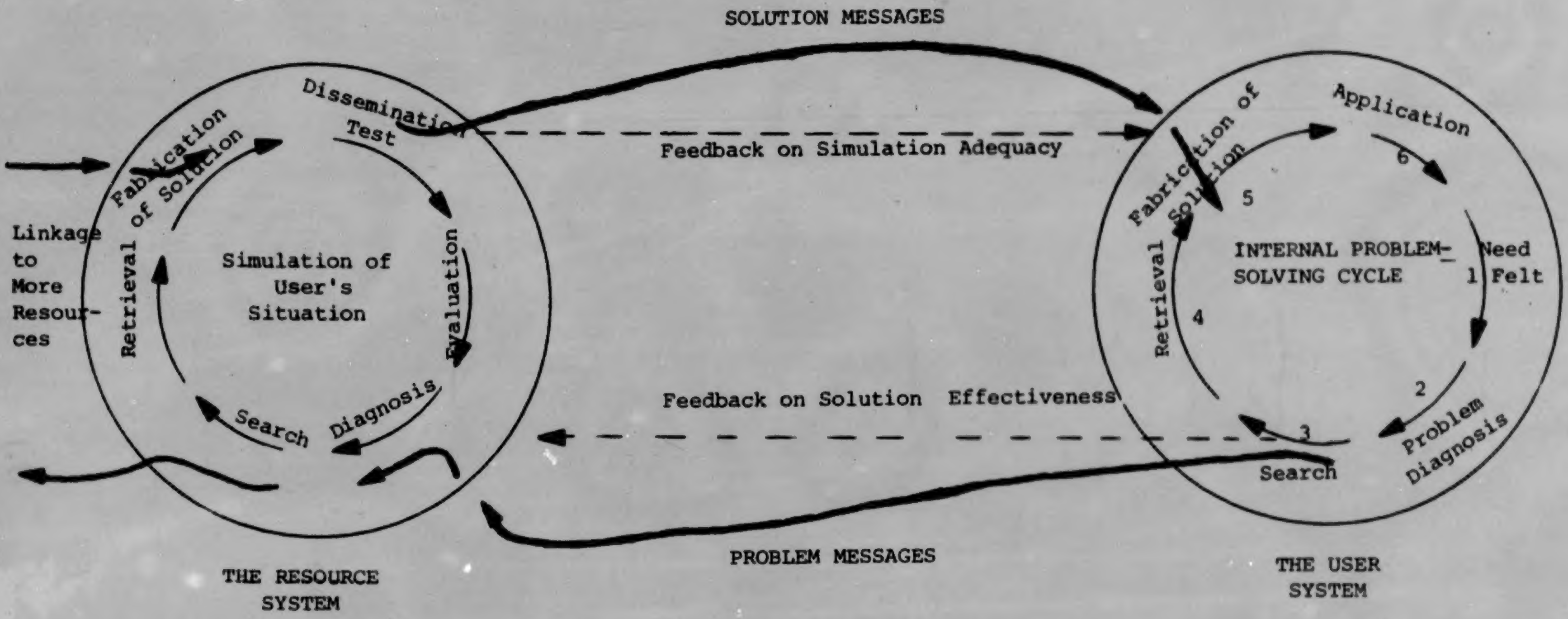

SOLUTION MESSAGES
Dissemination Test
Fabrication of Solution
Linkage to More Resources
Retrieval
Simulation of User's Situation
Evaluation
Diagnosis
Search
Feedback on Simulation Adequacy
Feedback on Solution Effectiveness
PROBLEM MESSAGES
THE RESOURCE SYSTEM
Application
6
Fabrication of Solution
5
INTERNAL PROBLEM-SOLVING CYCLE
Need Felt
1
Retrieval
4
2
Problem Diagnosis
3
Search
THE USER SYSTEM

Figure 5. A linkage view of resource-- user problem solving.

Note. From R. G. Havelock and M. C. Havelock, Training for change agents. Ann Arbor, Michigan: Center for Research on Utilization of Scientific Knowledge, University of Michigan, 1973, p. 23.

messages represent the communication between the systems (i.e., the linkage) and approximate the informal and formal communication which typify the social interaction model.

The linkage model, as a synthesis model, emphasizes both solution development and diffusion of the solution. As in the problem-solving model, however, most phases specified in the model are part of the adoption process. Only Phase 6, application, which is not clearly delineated in the model, is an implementation activity.

The Concerns-Based Adoption Model (CBAM)

According to its developers, the CBAM model is an eclectic model and combines concepts from all four of the models discussed previously (Hall, Wallace, & Dossett, 1973, p. 4). It is primarily a diffusion model and, unlike the linkage or problem-solving models, it is concerned with the implementation of an innovation, not the development of an innovation.

The CBAM model describes the change process as the interaction between the user system, the resource system, and the collaborative adoption system. In the words of Hall et al. (1973), "the model presents a conceptual framework for a multi-stage decision process. . .that involves these three systems" (p. 7). Figure 6 depicts the interaction of these three systems.

The collaborative adoption system is a temporary third system which results from the joint activity of the resource and user systems. The collaborative system is temporary in the sense that it may not necessarily occupy a space or have its own financial resources. It is expected to disappear once the user system has

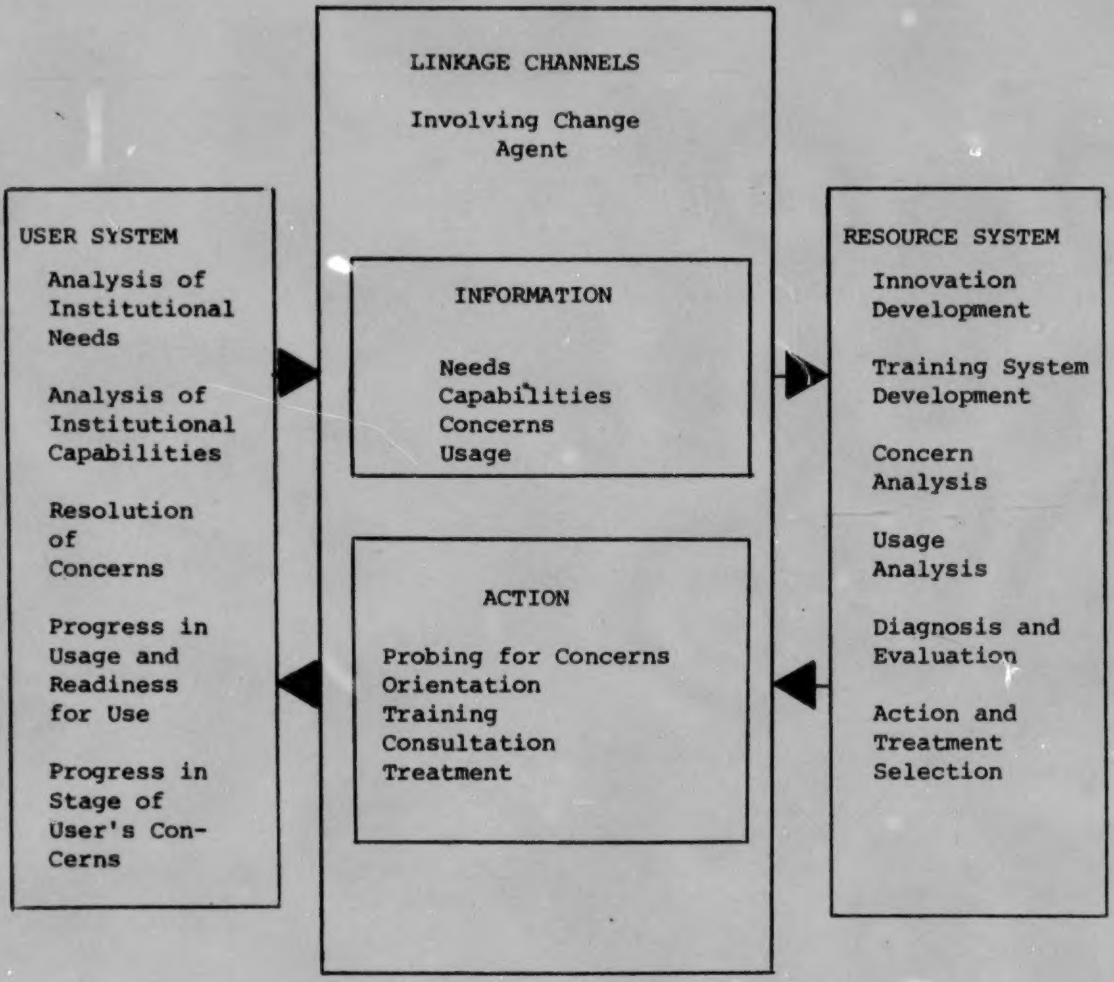

LINKAGE CHANNELS
Involving Change Agent
USER SYSTEM
Analysis of Institutional Needs
Analysis of Institutional Capabilities
Resolution of Concerns
Progress in Usage and Readiness for Use
Progress in Stage of User's Concerns
INFORMATION
Needs
Capabilities
Concerns
Usage
ACTION
Probing for Concerns
Orientation
Training
Consultation
Treatment
RESOURCE SYSTEM
Innovation Development
Training System Development
Concern Analysis
Usage Analysis
Diagnosis and Evaluation
Action and Treatment Selection

Figure 6. Conceptual structure and functional process organization of CBAM requirements.

Note. From G. E. Hall, R. C. Wallace, and W. F. Dossett, *A developmental conceptualization of the adoption process within educational institutions*. R & D Center for Teacher Education, University of Texas at Austin, September 1973, p. 17.

begun to use the innovation independently. The linkage agent mediates two classes of behavior between the user and resource systems--information and action. The specific activities in both areas are shown in Figure 6.

The CBAM model suggest eight discrete levels of use of an innovation. Of the levels, Hall et al. (1975) have said the following:

> These levels range from lack of knowing that the innovation exists to an active, sophisticated and highly effective use of it and, further, to active searching for a superseding innovation. It is further hypothesized that growth in quality of use of an innovation (movement toward higher levels) by most individuals is developmental (p. 52).

Specifically, the levels of use specified by the CBAM model are

Level 0: Non-use: State in which the user has little or no knowledge of the innovation, and is doing nothing toward becoming involved.

Level I: Orientation: State in which the user has acquired or is acquiring information about the innovation and/or has explored or is exploring its value orientation and its demands upon user and user systems.

Level II: Preparation: State in which the user is preparing for first use of the innovation.

Level III: Mechanical Use: State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.

Level IV-A: Routine: Use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.

Level IV-B: Refinement: State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short- and long-term consequences for clients.

Level V: Integration: State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.

Level VI: Renewal: State in which the user re-evaluates the quality of use of the innovation, seeks major modifications of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system (pp. 55-56).

The term adoption, as used in the CBAM, has a broad meaning and differs from the term accepted by the Studies of Implementation.

As conceived by the CBAM developers, adoption refers to "the multitude of activities, decisions, and evaluations that encompass the broad effort to successfully integrate an innovation into the functional structure of a formal organization such as a school, a college, or an industrial organization" (Hall et al., 1973, p. 5). Adoption, by the CBAM definition, includes seven of the eight levels (Level 0: Non-Use is excluded) and is equivalent to the Studies of Implementation's definition of the change process which includes both adoption and implementation activities. Under the Studies of Implementation definition, Levels I and II are part of the adoption process and Levels III-VI are considered implementation activities.

The IGE Model

The developers of Individually Guided Education (IGE) conceptualized an ideal process for the adoption and implementation of their innovation. Since 1971, implementation of IGE by the Wisconsin R & D Center has been guided by a model consisting of five phases (Heffernan, Mancusi, & Klenke, 1976, p. 13). These phases are awareness, commitment, changeover, refinement, and renewal. For each implementation phase, there are associated major phase outcomes, role-specific performance objectives, and staff development activities. In greater detail, the phases are

1. Awareness. School district decision makers are given: (a) overview information about IGE in order to stimulate them to adopt IGE, and (b) information regarding required school district commitments and how to gain those commitments in order to make the decision to adopt IGE.

2. Commitment. School district decision makers compile the necessary information and secure the necessary commitments, approvals, and cooperation of the potential IGE school staffs, parents, community groups, and school board. At the end of this phase, a decision to adopt or not adopt IGE is made. The decision to adopt IGE may be formalized by a written agreement by the school district and an implementation agency or an informal agreement between the school and implementation agency.

3. Changeover. The school staff is prepared for changeover to IGE through inservice and planning.

4. Refinement. Staffs find that new understandings and skills are required to refine their implementation efforts. The implementor working with the staff assists in identifying their needs and provides for communicating their needs to outside resources.

5. Renewal. Built into the system of IGE are the means for individuals and agencies cooperating in the implementation of IGE to: (a) identify and resolve unanticipated problems, (b) develop improved ways of implementing the concepts of IGE, and (c) prepare successive generations of personnel to fill IGE roles in the various agencies (pp. 14-18).

Unlike the other models presented previously, the IGE model does not provide a schematic drawing that illustrates the relationships between the user and resource systems as user adopt and implement an innovation. Perusal of the IGE literature does, however, suggest the nature of these relationships. As a user (an individual school) adopts and implements IGE and progresses through the phases of the change process, it interacts with an external resource system made up of existing agencies and specialized agencies. An implementor, in IGE terms, serves as the mediator between the user and resource systems in the early phases. Later on, the specialized agencies perform the liaison function between the user and the larger resource system. Figure 7 represents these relationships. The arrows in Figure 7 represent the direction from which information or needs are communicated. Thus, during the first two phases, the resource system initiates contact. During changeover, both the user and resource systems initiate contact and provide information. In the later stages, the user system actively communicates with the resource system.

As the IGE change process progresses, the level of involvement of the two systems and the implementor fluctuates. Figure 8 represents these variations. As illustrated in Figure 8, the resource system and implementor begin the change process at a high level of involvement and taper off as the user system changes over to the innovation. The decline in involvement is greater for the implementor whose reason for existence fades as the innovation is put into place. The resource system continues to interact with the user system at a somewhat reduced level even after implementation of the innovation. Figure 8 characterizes the user system as unaware of the innovation at the start of the change process, peaking in the level of involvement by the end of the commitment phase, and remaining at a high

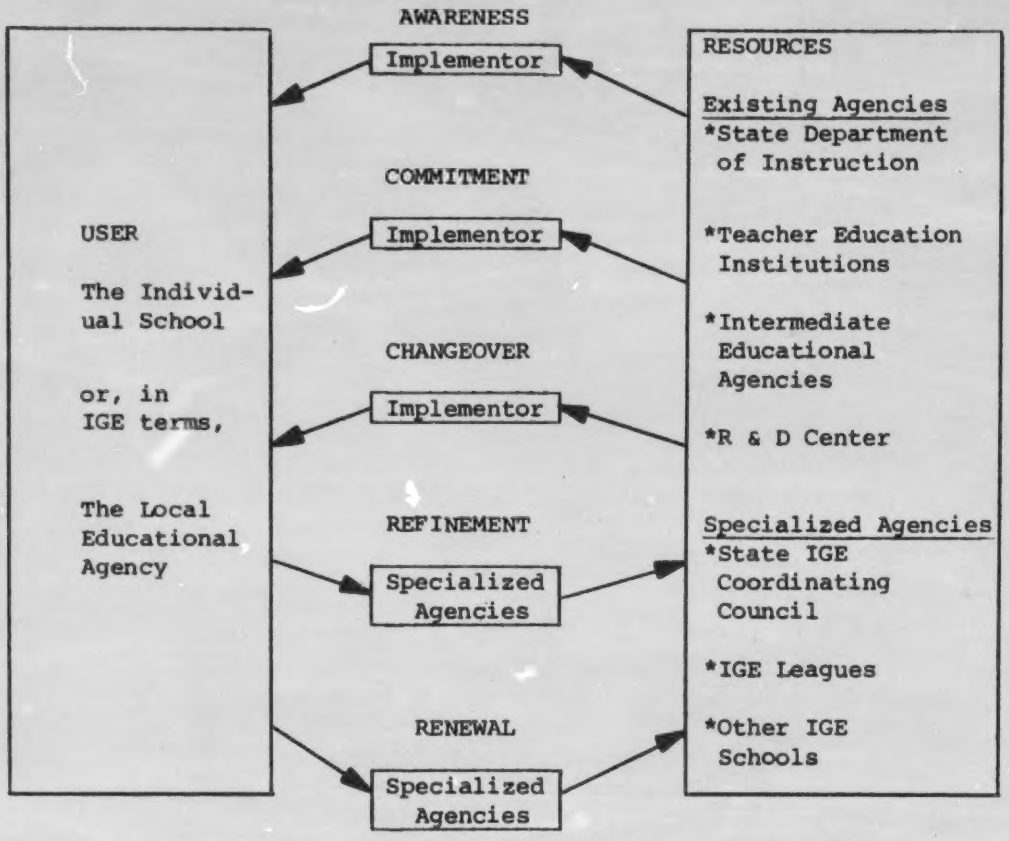

AWARENESS
Implementor
COMMITMENT
Implementor
CHANGEOVER
Implementor
REFINEMENT
Specialized Agencies
RENEWAL
Specialized Agencies
USER
The Individual School
or, in IGE terms,
The Local Educational Agency
RESOURCES
Existing Agencies
*State Department of Instruction
*Teacher Education Institutions
*Intermediate Educational Agencies
*R & D Center
Specialized Agencies
*State IGE Coordinating Council
*IGE Leagues
*Other IGE Schools

Figure 7. The IGE change process: Stages and system relationships.

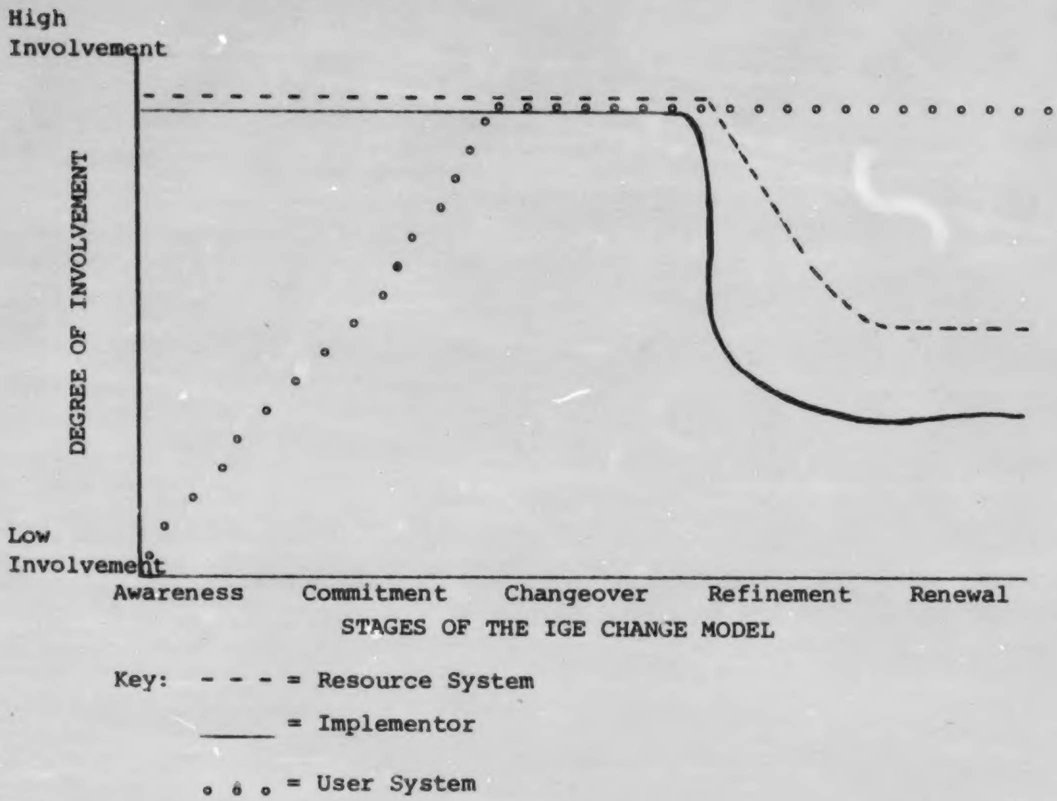


Figure 8. Level of involvement during the change process by the user system, the resource system, and the implementor.

level throughout the process.

As can be seen from Figures 7 and 8, the IGE change model is primarily concerned with the diffusion of an innovation, not the development of one. Employing the definitions set by the Studies of Implementation, the first two phases--awareness and commitment--are part of the adoption process; changeover, refinement, and renewal are implementation activities.

Implications of the Change Models for the Study of Adoption

Six change models have been presented. Three have represented the varying change perspectives identified by Havelock (1969). Two eclectic models have been discussed as well as one model specific to the innovation under focus in this study. An analysis of the change models provides a framework for understanding the change process as a whole and the adoption process as one specific piece of the total process. Awareness of the change models helped guide data collection and analysis in this study of adoption.

Knowledge About Change and Adoption

The change models have been shown to vary with respect to primary emphasis, assumptions about roles of participants, and phases included in the adoption process. Table 1 combines the varying emphases, assumptions, and phases of the six models.

As shown in Table 1, only one model, the problem-solving model, is principally concerned with the development of an innovation to solve a perceived need. The social interaction model is primarily

Table 1

Characteristics of Various Models of Change

MODEL	PRIMARY EMPHASIS	KEY ASSUMPTIONS OF THE CHANGE MODELS	ADOPTION STIMULUS IN THE USER SYSTEM	ORIGIN FOR ADOPTION STIMULUS	ADOPTION PHASES
PROBLEM-SOLVING MODEL	Innovation (solution) development	1. The user system recognizes a need or problem and desires a solution. 2. The user system actively participates in seeking a solution. 3. The resource system assumes a collaborative role. 4. The user system actively participates in the selection of the solution.	Awareness of a problem	The user system	Felt need, problem diagnosis, search, retrieval, and fabrication of a solution
SOCIAL INTERACTION MODEL	Innovation diffusion	1. The innovation to be adopted is already in a developed form. 2. The adoption process begins by awareness of the innovation or a problem by the user system. 3. Innovation awareness occurs through personal contact with professional peers. 4. The user system actively seeks information about the feasibility of innovation for the present situation.	May be either awareness of an innovation or awareness of a problem	The resource system or the user system	Awareness, interest, evaluation, trial, and adoption
RESEARCH, DEVELOPMENT, DIFFUSION MODEL	Innovation development and innovation diffusion (equal emphasis)	1. The innovation is created by a research organization employing an orderly developmental sequence. 2. Awareness of the innovation by the user group is the result of dissemination efforts by representatives of the R&D organization. 3. The user system accepts the recommendation of the reserach organization to adopt the innovation.	Awareness of an innovation	The resource system	Research, development, diffusion, and adoption
LINKAGE MODEL	Innovation development and innovation diffusion (equal emphasis)	1. The user system recognizes a need or problem and desires a solution. 2. There must be a reciprocal relationship between the resource and user systems characterized by the ability of each to simulate the search and retrieval process of the other. 3. The development of reciprocal relationships create a stable and long-lasting social influence network.	Awarenss of a problem	The user system	Felt need, problem diagnosis, search, retrieval, fabrication of a solution
CBAM MODEL	Innovation diffusion and implementation	1. The user system recognizes a need or problem. 2. The innovation to be adopted is already in a developed form. 3. A collaborative adoption system, a temporary third system, links the user and resource system together. 4. The innovation is adopted by the user system to solve an identified problem.	Awareness of an innovation	The resource system	Orientation and preparation
IGE MODEL	Innovation diffusion and implementation	1. The innovation to be adopted is IGE--an already developed innovation. 2. The adoption of IGE must be schoolwide at the same time. 3. The IGE resource system (R&D Center or their representatives) initiates contact with the user system during adoption. 4. Training and information to the user system are provided by the WI R&D Center, /I/D/E/A/, or their recognized representatives. 5. Inservice training must be provided to principals and teachers prior to implementation of IGE. 6. The adoption of IGE is formalized by written or stated agreement between school officials and implementation agencies. 7. The user system has option to accept or reject IGE.	Awareness of an innovation	The resource system	Awareness and commitment

a diffusion model, i.e., it describes mainly the process by which an innovation (developed outside the user system) is spread. Two models, the RD&D Model and the Linkage Model equally emphasize innovation development and diffusion. The remaining two models--the CBAM and IGE perspectives--describe both the spread of innovations (diffusion) and the process by which they are put in place (implementation).

As Table 1 further illustrates, the six change models vary considerably with respect to the key assumptions underlying them. These key assumptions highlight the variations in expected behavior of participants, source of the innovation, and method of diffusing the innovation.

Campbell (1966) contends that the first major consideration in constructing a model of the adoption process is to designate a starting point. He suggests that a model may have one of two starting points: awareness of a problem or awareness of an innovation which may create a problem. According to Campbell (1966),

> It is not easy to distinguish between these two types of decisions. One must determine whether the innovation was discovered as a result of the actor's attempts to find a solution to a problem, or whether the problem (dissonance) was created by his becoming aware of an innovation (p. 460).

The starting points of the six change models can be inferred from the emphases of the model, the key assumptions, and the initiators of adoption.

As Table 1 illustrates, in three of the six models, the resource system initiates the adoption process by making the user system aware of an innovation (see columns 4 and 5, Table 1). In the problem solving and linkage models, users, aware of problems, stimulate the adoption process by seeking solutions. According to the social interaction perspective, either the user or resource systems may start the adoption process and the adoption stimulus may be either awareness of a problem or awareness of an innovation.

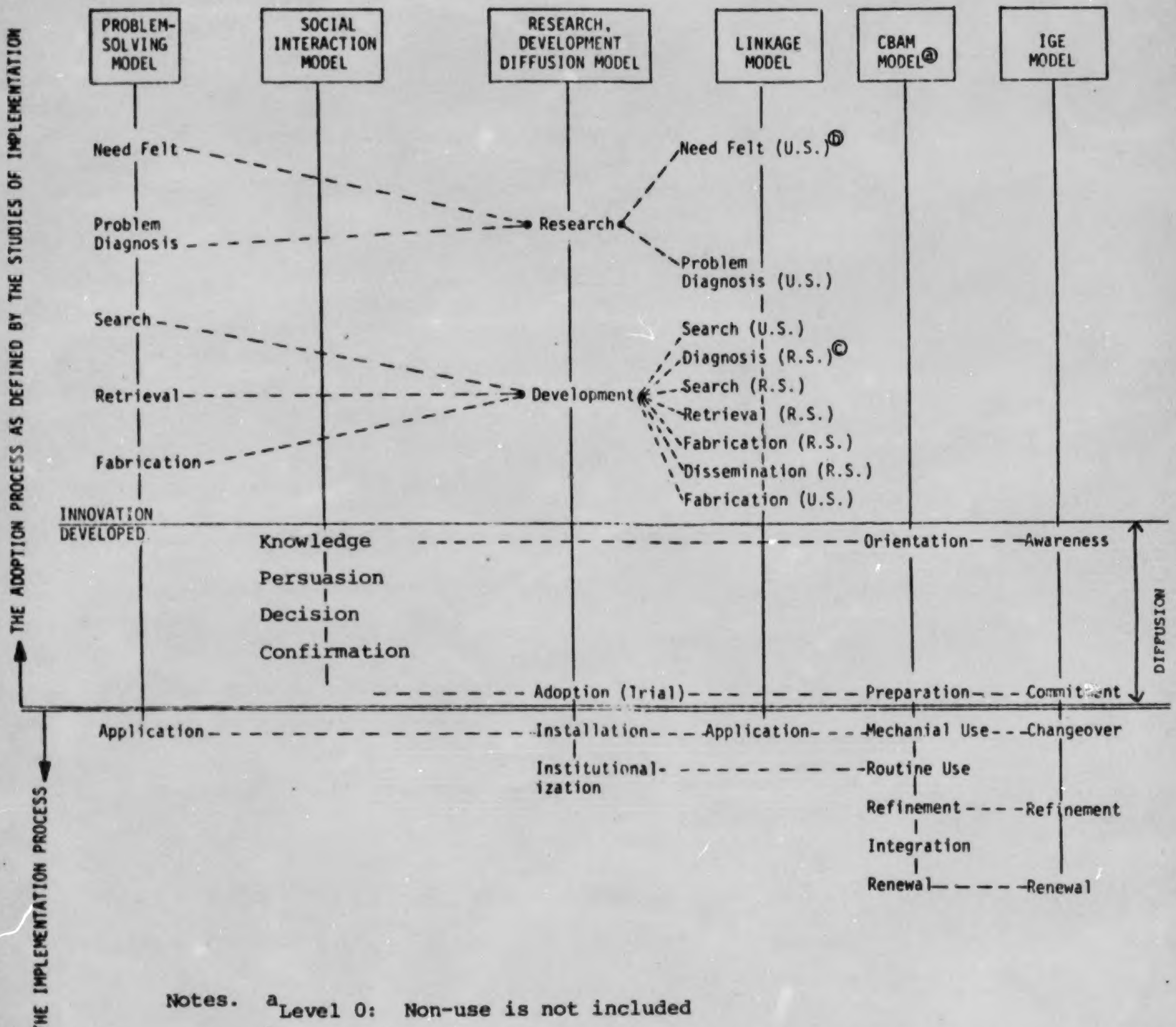
As a final point of comparison, Table 1 lists the adoption phases of each model using the definition of the adoption process suggested by the Studies of Implementation. As might reasonably be expected, those change models that emphasize implementation have relatively few adoption phases.

Table 2 presents a comparison of the phases of the six change models. The table highlights graphically the emphases of the models. All phases above the double horizontal solid lines are part of the adoption process while those below the double solid lines are implementation stages; phases between the single and double horizontal solid lines are stages of diffusion, a subset of the adoption process concerned with the spread of an already developed innovation. The single horizontal solid line indicates that an innovation has been developed. Note that in three of the models, there are no stages specified above the solid line; therefore, the existence of an innovation is assumed.

The broken horizontal lines connect equivalent phases of the six models. For example, "knowledge" in the social interaction

Table 2

A Comparison of the Phases of Six Change Models


PROBLEM-SOLVING MODEL
SOCIAL INTERACTION MODEL
RESEARCH, DEVELOPMENT DIFFUSION MODEL
LINKAGE MODEL
CBAM MODEL ⓐ
IGE MODEL
Need Felt
Problem Diagnosis
Search
Retrieval
Fabrication
Research
Development
Need Felt (U.S.) ⓑ
Problem Diagnosis (U.S.)
Search (U.S.)
Diagnosis (R.S.) ⓒ
Search (R.S.)
Retrieval (R.S.)
Fabrication (R.S.)
Dissemination (R.S.)
Fabrication (U.S.)
INNOVATION DEVELOPED
Knowledge
Persuasion
Decision
Confirmation
Orientation
Awareness
Adoption (Trial)
Preparation
Commitment
DIFFUSION
Application
Installation
Application
Mechanial Use
Changeover
Institutional-ization
Routine Use
Refinement
Refinement
Integration
Renewal
Renewal
THE ADOPTION PROCESS AS DEFINED BY THE STUDIES OF IMPLEMENTATION
THE IMPLEMENTATION PROCESS

Notes. [a] Level 0: Non-use is not included

[b] U.S. is the user system

[c] R.S. is the resource system

model is comparable to the "orientation" level in the CBAM model and "awareness" in the IGE model. Graphic comparison of the phases of the models not only suggests similarities of the models but also indicates greater specification of common phases by some of the models.

The study reported in this technical report was concerned with the adoption process. Therefore, data were collected and analyzed relative to the phases above the double horizontal solid lines in Table 2. These represent the adoption phases in the six models.

Implications of the Change Models for Data Collection and Analysis

The six change models are attempts by researchers to explain the processes by which innovations are adopted and implemented. One way to analyze the adoption process in the 13 sites is to compare the actual adoption events in the research sites with the described procedures of the models. Comparison of actual events with the various models required the collection of specific data.

Knowledge of the change models suggested the data be collected in the following areas:

1. Role of participants in innovation development. Was the innovation developed by the user system or the resource system?

2. Origin for adoption stimulus. Was adoption stimulated from inside or outside the school?

3. Adoption stimulus. Did search for an innovation arise from an existing problem state or did a problem state evolve from awareness of the innovation?

4. Adoption phases. What phases or stages were experienced in each site and what was the sequence of these stages?

Once data in these areas were collected, it would be possible to confirm or deny the adequacy of each of the change models in explaining adoption behavior in the 13 sites.

The Adoption Literature

Much of the general adoption literature has its roots in studies of the spread of agricultural practices by rural sociologists and most of these studies have focused primarily on the individual as the adopting unit (Beal, Rogers, & Bohlen, 1957; Bohlen, 1964; Bose & Basu, 1963; Brander & Bryant, 1964). These early studies of adoption provide insight into individual considerations and behavior relative to innovation adoption but the findings are not directly applicable to school systems because of the complex organizational structure of schools. As Gross, Giacquinta, and Bernstein (1971) have argued:

> After this extensive review of adoption and diffusion studies, Rogers proposes a model to explain why individuals do or do not adopt innovations. . . . We believe, however, that this model has little use in explaining the success or failure of the implementation of innovations in schools or other types of organizations. Its lack of utility is due to certain of its assumptions which are not applicable to the implementation of *organizational* innovations (pp. 20-21).

Gaynor (1975) sees the emphasis upon the individual as the adopting unit as a major weakness in the change literature. As he suggests "persons operating as members of organizations are simply not as free as independent entrepreneurs (e.g., farmers and physicians) to implement significant innovations entirely on their own initiative. They are freer to propose innovations than they are to implement them. . ." (p. 12).

The comments of Gaynor and of Gross et al., underscore the importance of considering organizational variables as well as personalistic variables in attempting to understand the adoption of innovations in schools.

A number of acronymic lists of the factors necessary for innovation adoption by individuals and organizations have been suggested in the literature. The A VICTORY list offered by Davis (1971), the CORRECT list by Glaser (1973), and the H-E-L-P S-C-O-R-E-S list by Havelock and Lingwood (1973) are examples. In addition, Zaltman, Duncan, and Holbek (1973) suggest 19 factors and Rothman (1974) list 22 generalizations that are likely to influence the adoption process.

In a comprehensive review of the change literature prepared at the Human Interaction Research Institute (HIRI) (1976), the authors argue for the similarity of the seemingly diverse lists. Although the "listings of factors that may influence the likelihood of adoption of an innovation are couched in different terms, they are related in many respects" (p. 8). The authors present a table which compares the eight factors of Davis, Glaser's 20 factors, the

19 factors of Zaltman et al., and Havelock et al.'s 10 factors. By combining and condensing some of the factors in the longer lists, they indicate the considerable overlap in the lists and suggest that the eight factors in the A VICTORY list encompass most of the important factors suggested elsewhere (p. 9).

Due to the representatives and parsimony of the factors in the A VICTORY list, the Davis list will be discussed in greater detail here. From an examination of case studies, clinical experiences, and the literature on change, Davis (1971) suggested the list of eight factors which could be used to measure the readiness of an organization to adopt an innovation. The eight factors are defined as follows:

A = Ability, the resources and capabilities of the organization to implement and subsequently evaluate the innovation; sanctions of decision makers to adopt the innovation.

V = Values, the degree of accord with the organization's philosophy and operating style.

I = Idea, the adequacy of knowledge about the innovative procedure and the proposed action steps.

C = Circumstances, features of the organization environment relevant to successful adoption or adaptation of the innovation.

T = Timing, readiness to consider the innovation; the particular combination events at a given time that might affect the likelihood of implementation.

O = Obligation, the felt need to change from existing modus operandi--or at least to try the proposed change.

R = Resistances, inhibiting factors--the organizational or individual disinclination to change, for whatever reasons.

Y = Yield, the benefits or payoff from the innovation as perceived by potential adopters and by those who would be involved with implementation at the operating level (Davis as cited in Human Interaction Research Institute, 1976, pp. 5-6).

Though the factors listed in the A VICTORY model cannot be considered all-encompassing or exhaustive, they have provided a useful focus and framework for beginning to understand the adoption of an educational innovation by a complex organization.

Research on the Adoption of IGE

In 10 of the 13 sites described in this study, Individually Guided Education (IGE) was the innovation which was adopted. Previous research has been conducted on particular aspects of the adoption of IGE and the findings are germane to this study. Goodridge (1975) was interested in identifying those people who made the final decision to adopt IGE and those factors which influenced that decision.

Using field study methodology, Goodridge interviewed superintendents, school board members, principals, unit leaders, teachers, parent/aides, and consultants in eight geographically distributed areas. His major conclusions were categorized in three areas:

conclusions about decision makers, influential factors, and supplementary conclusions. His findings were as follows:

Decision Makers

1. Principals were the major decision makers concerning the decision to adopt IGE in the target schools. In the majority of cases this decision was shared with the staff teachers.

2. The superintendent was not a participant in the making of the adoption decision in any of the schools where the major decision makers were the principal and the staff.

3. In the one case where the superintendent and the board shared the adoption decision process, the principal and the staff teachers were excluded from participating in this decision.

4. Parents and the central office personnel were minimally involved in the adoption decision process.

5. School boards were not influential in the adoption of IGE, although it was always assumed that they gave the necessary formal approval.

Influential Factors in the Adoption Decision Process

1. Decision makers and non-decision makers agreed that individualization of instruction related to the IGE program was the major reason for the adoption of IGE.

2. The adoption of IGE for the sake of prestige and keeping up with current trends or for a gain in funding were seen by many respondents as being important reasons for the adoption of IGE.

3. A number of respondents conceived IGE as consisting mainly of the _Wisconsin Design for Reading Skill Development_ and considered that IGE was adopted to utilize this reading program.

4. The responses of teachers in particular as to why IGE was adopted showed a lack of awareness of many of the seven components of the total IGE program.

5. School boards were often prepared to let others decide about educational programs if no extra cost was involved. Where increased expenditure was required then the board wished to be involved in these decisions.

Supplementary Conclusions

1. The most influential and successful change agents were shown to be practitioners from other IGE schools.

2. Consultants generally provided information. IGE facilitators made presentations considered by teachers to be unreal and too idealistic and their credibility was often challenged.

3. Decision making concerning adoption was shared only between two individuals or groups in the school system, i.e., principal and staff or superintendent and school board. The adoption decision was nowhere shared between board members, central office, superintendent, principal, staff, and parents.

4. Generally, teachers were not offered the opportunity to transfer to another school if they did not desire involvement in IGE.

5. When the adoption decision was made, identified decision makers considered that they had sufficient information to make this decision.

6. Some identified decision makers, particularly teachers, agreed to the adoption of IGE but made no commitment to adapt their own instructional methods or behavior to the requirements of the new program as reflected in the seven components of IGE (pp. 149-150).

While Goodridge was interested in one narrow aspect of the adoption process, i.e., the actual decision to adopt, his findings suggest areas for data collection and provide a point of comparison for data collected in this subsequent study.

Conclusion

Literature in three areas was reviewed for the purpose of (a) establishing what is already known about the process by which innovations are adopted, (b) indicating the present state of knowledge with respect to the adoption of Individually Guided Education, (c) informing data collection by suggesting potentially productive areas about which to collect data, and (d) providing a framework for later data analysis. Five general change models and the IGE change model were presented to fulfill purposes (a), (c), and (d) above. The general adoption literature was reviewed likewise to meet these purposes. Finally, research related to IGE was explored in order to contribute to purposes (b) and (d).

CHAPTER III

INNOVATION ADOPTION: A METHODOLOGY

How can one turn back the hands of time to document those events that led to the adoption of an innovation? How can a sense of meaning or understanding be derived from those documented events? Those who have attempted such a task have used a variety of methods. Some researchers have described the adoption process through a documented chronology of significant events which include the names and positions of influential individuals, places, dates, and provide descriptions of key decisions in the process. Other efforts, using a more quantitatively oriented methodology, have produced lists of specific conditions or factors that influence the adoption process. Most efforts, however, have been confined to the adoption process per se, with the subsequent implementation process being omitted. The present research, like the efforts of many other researchers, attempts to better understand the adoption process.

Since all 13 schools in the present study adopted the desired innovation prior to their inclusion in the study, a methodology that would enable the staff to develop a comprehensive understanding of the events comprising the adoption process was necessary. An historical research methodology with modifications seemed appropriate if not obvious.

Historical research, as defined by Fox (1969) "is past-oriented research which seeks to illuminate a question of current interest by an intensive study of material that already exist" (p. 406). To adequately describe the methodology used in this study, two criteria implicit in Fox's definition need clarification and modification: problem orientation and data existence.

The problem, as stated in Chapter I, is to understand the adoption process and to relate the events and influences that are part of that process to the subsequent implementation process. Thus, the present research is not only oriented toward understanding past events and influences but also toward understanding how they affect both present and future events. With a past, present, and future orientation, a methodology allowing researchers to traverse those time parameters was necessary.

In building an understanding the total change process, it is conceivable that the adoption process presented in this report will be altered during the remainder of the study. As more of the implementation process is understood and linked with the adoption process, new insights may result in a revision in the description of that process. Put differently, the richest understanding of both the adoption process and the implementation process can best be reached by understanding each in relationship to the other.

The second criteria in Fox's definition requires the "analysis of data which were actually created in the period under study" (p. 430). Thus, the arduous task confronting the researcher is one of locating such data. As described by Fox (1969) and Van Dalen (1962), data must have been created during the period of time under study and typically assume some physical form, e.g., official and personal records, published materials, and artifacts. Van Dalen includes oral tradition as legitimate historical data. The source of the data as well as its form is also important. Fox details an evaluative framework to describe sources of historical data. Data sources created for the express purpose of preserving information or recording an event are labeled as "deliberate" sources. Sources which provide information about an event although it was not the intent of the source to do so are termed "inadvertant" sources. Deliberate and inadvertant sources can be further described as being either primary or secondary. "A primary source is firsthand, and always involved the direct reporting or recording of an experience" (Fox, p. 413). All other sources are labeled as secondary, those sources being secondhand at best. Fox, however, cautions that although primary sources assure reports or records by individuals directly associated with the experience, they do not assure accuracy of the data.

Initial efforts of the staff were directed toward the discovery of historical data that would provide sufficient information to document the adoption process associated with the school's use of IGE or DMP. In a very short period of time it became obvious to the staff that in most sites such data did not exist. Lack of historical data may be attributed to a variety of reasons. Such events were not deemed necessary to record, most events associated with the adoption process may have occurred outside the formal school structure in which minutes are taken or records produced, or the staff was not successful in locating existing data. In a few instances, however, a rich source of historical data was located.

With the paucity of historical data, it was necessary to create a data base so that documentation of the adoption process could be completed. A survey approach was selected. Two conditions, as described by Fox (1969), suggest the survey method as appropriate. First, "there is an absence of information about a problem of educational significance" (p. 424). Second, conditions from which necessary information can be obtained are present and accessible to the researcher. Both such conditions were present in the reported study.

Specifically, a retrospective survey was employed. While the retrospective survey is similar to the historical methodology in that they are both past-oriented, they differ in one critical respect. In the historical method data are created in the period of time under study whereas in the retrospective survey they are recreated some time after the event.

Thus, the methodology employed in the present study to develop an understanding of the adoption process incorporated features of both the historical and retrospective survey methodologies. Historical data, when available, were gathered and identified in terms of their source. Retrospective interviews with onsite personnel involved in the adoption process were held to provide additional data. Together, both sources of data were used to build the understanding of the adoption process described in this report.

The general steps in the methodology are listed below and described in greater detail in the remainder of this chapter: Step I, Data Collection; Step II, Data Organization; Step III, Data Analysis Step IV, Conclusions.

Data Collection

Data were collected as a result of several interrelated activities. First, the initial research proposal identified a number of potentially key factors suggested in the change literature as being significant in the adoption phase of the change process. Since the overall problem confronting the staff was to understand the adoption and implementation process in terms of each other, it appeared reasonable that a beginning point was the identification of conditions, as suggested by the literature, that were characteristics of the overall change process, i.e., characteristic of both the adoption and implementation process. Second, the potentially critical factors were subsequently used to guide the selection of the specific research sites. (A complete description of the site selection process can be found in Davis, Klenke, & Barrows, 1979.)

Four of the key factors in the change process that were used in the site selection process are summarized here for reader orientation (see Table 3). First the literature suggests that the change process is phasic in nature. The specific nature of the phases, while not fully understood, are usually described as being linear in sequence. Thus, to maximize the chance that the sites would be at varying phases in the change process, schools using the innovation for varying lengths of time were desired. Four specific schools fit this condition: Lewis, in their first year of IGE; Arrow, two years

Table 3

Characteristics of School Research Sites

School	Urban	Non-Urban	Years Implementing IGE	Implementing WDRSD	Implementing DMP
Lewis	X		Beginning	No	No
Star		X	1	Yes	No
Arrow	X		2	Yes	No
Mercury		X	4	No	Yes
Meadow	X		6[1]	Yes	No
Sawyer	X		7	Yes	No
Rise	X		7	Yes	Yes
North	X		7	No	Yes
Davis	X		7	No	No
York		X	4	Yes	No
Canal		X	DMP-1	No	Yes
Ware		X	DMP-1	No	Yes
Miller		X	DMP-1	No	Yes

[1] According to data supplied by the school district on the preliminary survey, Meadow School had implemented IGE for three years. Subsequent data established that the innovation had been in place for six years.

of IGE; Meadow, six years of IGE;[2] and Davis, seven years of IGE. In addition to these specific schools being selected to fit that condition, the remaining schools have also used the innovation for varying lengths of time.

The literature also suggests that the complexity of the organization is a significant factor in the change process. Because urban schools are generally considered more complex than non-urban schools, an urban/non-urban distribution was sought. Six of the 13 schools are identified as urban schools, Star, Mercury, York, Canal, Ware, and Miller. The remaining schools are non-urban schools. Star, Mercury, and York are in the same Wisconsin city. The remaining three are in another state, but all three are in the same school district.

A third factor affecting the change process is the user's access to materials supporting the innovation. Schools using curricular products designed around the Instructional Programming Model in IGE, DMP, and WDRSD, were desired. North School used DMP; Sawyer used WDRSD; and Rise used DMP and WDRSD. While Canal, Ware, and Miller were not implementing IGE, each was implementing DMP. The remaining schools were not using either DMP or WDRSD.

The fourth factor identified by the change literature is the relationship between the user group and its external environment. Since IGE establishes specific linkages with external groups, all but Canal, Ware, and Miller fit into this category. These three non-Wisconsin schools, however, provided the study an opportunity to examine this dimension of the change process where external linkages are not a specifically designated component of the innovation being implemented.

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[2] Analysis of the adoption data obtained through extensive interviewing revealed that the data supplied by the school district respondent on the preliminary survey was in error by three years. Actual adoption date, 1969.

During the site selection process, other descriptive data were collected. They are summarized in Table 4 and presented here for reader-orientation purposes. During the site selection process, the existing data were collected and used to describe each of the 13 sites these data are presented in Technical Report No. 494, 1979.

After agreement to participate in the study was received from each of the 13 sites, succeeding activities focused on documenting the specific events and influences that occurred during the adoption of the innovation. Two sources of data were used in reconstructing the adoption process in each site, historical documents and retrospective interviews.

A semi-structured interview protocol was constructed. Questions were formulated to probe several major factors suggested in the literature as being significant influences in the adoption process. Several open-ended questions were also included to probe other areas of possible influence. Each interview concluded with a request of the interviewee to nominate individuals believed to be influential in the adoption process. A complete history interview protocol is found in Appendix A.

As noted in Chapter II, the literature abounds with lists of specific factors that influence the adoption process. The A

Table 4

Selected Characteristics of School Research Sites

School	Student Enrollment/ No. of Classroom Teachers	Support Staff/ Paid Aides	No. of I & R Units	No. of MAPE Units	No. of Special Service Units	Architectural Design, P = Pod T = Traditional O = Open	Cost[2] Per Pupil Compared to State Average	% of Minority Students in District	% of Minority Students in School	% of Non-Public Student Enrollment in District	Exp. of Bldg. Principal	Unit/ Grade Research Focus
Lewis	437/18	12/4	3	1	1	P	$-400	.7	3	6	5	U
Star	525/20	13/21	3	0	1	T	+250	46.8	99+	23	5	L
Arrow	315/13	8/4.5	3	1	0	T	0	.9	3	5	1	L
Mercury	468/18	4.8/11	4	0	0	P	+250	46.8	35	23	4	L
Meadow	97/5	9/2	2	1	1	1/2P 1/2T	-200	1.5	3	8	2	U
Sawyer	350/13	1.4/2	2	0	0	T	-200	1.7	3	14	13	U
Rise	395/14.5	3.8/2.5	4	0	0	T	-300	1.5	3	25	8	L
North	285/12	6/2	3	0	0	O	+100	.7	3	10	29	L
Davis	465/17	6/4	4	1	1	T	-400	.8	3	1	7	L
York	500/15	3.8/10	4	1	0	1/2P 1/2O	+250	46.8	35	23	4	L
Canal[1]	620/26	11/8	NA	NA	NA	T	+ 50	51.7	35	27.1	4	K-3
Ware[1]	750/40	30/21	NA	NA	NA	T	+ 50	51.7	53	27.1	5	K-3
Miller[1]	507/25	17/20	NA	NA	NA	T	+ 50	51.7	50	27.1	2	K-3

1 = Non-Wisconsin sites.
2 = Rounded to the nearest $50.
3 = Figures not available.

VICTORY list (Davis, 1971) was identified as a representative summary of the many available lists. Thus, the A VICTORY list provides a set of organizing categories around which to describe the questions contained in the history interview protocol. Although each of the questions were designed to probe the characteristics of the organizing categories, they were sufficiently open-ended to permit the interviewee adequate latitude during the interview to venture into other areas. In addition, the open-endedness of the questions permitted the interviewer to probe the interviewee's responses as well as pursuing other possible areas of inquiry. Specifically, the questions on the history interview protocol relate to the A VICTORY categories as follows:

Category	Questions
A = Ability	4, 6, 7, 8, 13, 14
V = Values	2, 3, 9, 10, 11, 12
I = Idea	1, 4, 9
C = Circumstances	3, 5, 8, 9, 11
T = Timing	
O = Obligation	
R = Resistance	13, 14
Y = Yield	2

The initial history interview at each site was held with the building principal. During the interview, the principal identified those current staff members that were on staff the year prior to the adoption of the innovation. Staff lists beginning that year were also collected. In addition, the principal was asked to nominate any other individuals believed to have been involved in the adoption of the innovation. Subsequent history interviews were held with staff members present during the adoption of the innovation as well as others reputed to be influential in the adoption process. Each interviewee was asked to nominate influentials to be included as interviewees. Table 5 presents a summary, by role category, of the number of individuals interviewed at each of the school sites.

Interviews were conducted on-site by staff members over a period of several months. Each interview, with few exceptions, was taped. Within 24 hours of the completion of the interview, each interviewer prepared a written summary of the interview. The written summary was organized around the interview questions. Emphasis was placed on including documentation with direct quotes taken from the interview. Each taped and written summary of the interview was logged and filed in a central locked cabinet. Periodic meetings of staff members were held to discuss the adoption process in each site. Interviews were conducted until a history of the adoption process was possible in each site.

When historical documents were located, copies were made and filed appropriately. Historical documents ranged from personal correspondence to taped recordings of relevant meetings.

Data Organization

Data from the interviews and documents were collected, organized, and presented in a case study format. Each staff member was assigned responsibility to complete one or more of the 13 case

Table 5

Summary of Individuals Interviewed in School Sites

Position	Lewis	Star	Arrow	Mercury	Meadow	Sawyer	Rise	North	Davis	York	Canal	Miller	Ware	Total
Current Superintendent					1	1			1					3
Current Principal	1	1	1	1		1	1	1	1	1	1	1	1	12
Current Unit Leader	1	1			1	1		1		1				6
Current Teacher			2	2	1	1	2	1	4	1				16
Current Central Administration						1			1		1	1	2	6
Current Aide						1								1
Former Principal			1	1					1					3
Former Unit Leader						1								1
Former Teacher						1								1
Former Central Administration	1	1	1	1		2		1	1	1				9
Other				1		1	1				2	2	2	9
Total	3	3	5	5	4	11	4	4	9	6	4	4	4	67

studies. Because the three non-Wisconsin urban sites were located in the same school district, they were prepared as one case study.

A prototype case study format was developed to organize the data from each of the 13 sites; this is found in Appendix B. Modifications to the prototype were necessary because of the nature of the adoption process that was documented in each site. A prototype format was used for two purposes, (a) to systematically organize the data, and (b) to provide consistency in presentation to facilitate cross site comparisons. The prototype format consisted of five parts, (a) tallies, (b) timeline, (c) narration, (d) interpretation, and (e) incomplete data.

The tally sheet was the first section of the case study and contained tabulations in four general areas. The first area of tabulations contained the number, by role status, of individuals interviewed. The second group of tabulations summarized the specific decision to adopt the innovation. Included were tabulations of who was identified as having made the decision, reasons for selecting the innovation, and ways in which the various individuals became aware of the innovation.

The use of the terms "adoption" and "implementation" need clarification at this point. At the time in which the prototype case study format was developed, the project had defined adoption as those events that occurred prior to the actual decision to adopt the innovation. All subsequent events were labeled implementation activities. Since the development of the prototype, the project, in response to further analysis of the data, has redefined those terms to be consistent with what it believes to be a more realistic description of the change process. In sum, the activities that were referred to in the prototype as implementation are in fact consistent with the redefined adoption activities as described in Chapter I.

The third set of tabulations in the tally sheet summarized the adoption activities. This section contained a tabulation of the problems encountered during the user's preparation to implement the innovation. Also included were the names and role status of individuals involved in the adoption process and their agency affiliation. A final section contained a tabulation of the costs designated to assist in the adoption and implementation of the innovation, as well as the type and frequency of inservice activities during implementation.

The second major section of the case study prototype was the presentation of an adoption timeline. The timeline included a listing of critical events surrounding the adoption of the innovation. In addition, each critical event was briefly summarized; summaries included names, dates, and locations of individuals involved.

The third section of the prototype was a narrative description of the adoption history. The narrative section contained two parts, the school setting prior to the beginning of the adoption process and the adoption process.

The school setting portion of the narration section was designed to provide a description of what the school was like prior to the beginning of the adoption process. It focused on the physical characteristics of the school; school district characteristics; ongoing issues or debates within the school, attendance area, or school district; description of the methods or procedures by which the innovation became known to the individuals at the site; and the innovation's perceived advantages and disadvantages. The second portion of the narration section focused on the decision to adopt the innovation. It identified the individuals influencing the decision in addition to the specific individual or individuals who, in fact, made the decision to adopt. Also included was a description of the factors that appeared to influence the adoption decision.

The final portion of the narration was a presentation of activities and costs associated with preparing the users for the subsequent implementation of the innovation. Included in this section was a discussion of the changes that occurred as a result of preparing for the implementation, the changes that would have to be brought about to implement the innovation, problems encountered during that preparation time, and the perceived rate at which the implementation process occurred.

The fourth section of the format focused on the writer's interpretation of the adoption process at that site. This section afforded the writer the opportunity to present his or her interpretation of the major factors, influences, and key events significant in the adoption process. Emphasis was placed upon the documentation of interpretive statements by citing the source and location of the supporting data.

The final section of the narration was a listing of the incomplete data. This section contained two parts, the missing data and the discrepant data. By working through the prototype outline, it was possible to identify gaps and missing portions of the adoption history so that the staff could return to the site and attempt to locate the data in order to fill in gaps in the history. This section also made possible a statement of discrepant data, those areas in the adoption history where agreement about events, times, etc., could not be reached. In discussing the discrepant data, not only the specific discrepancy was noted but also the source of discrepant data with potential reasons for its discrepancy. Suggestions for resolving discrepant data were also included. It should be noted at this point that it was not the project's attempt to force the data to remove any discrepancies but rather to document such discrepancies and the reasons for them.

Upon the completion of each case study, copies were made for each member of the research team. Each case study was then read and reviewed by the staff members. The readers reviewed each case study for its completeness and accuracy. After the review, several staff meetings were held to discuss the adoption process in each of the 13 sites.

Upon the completion of the writing and review process for each of the case studies, one staff member was assigned the responsibility of writing a narrative history of the adoption process of each of the 13 sites. After the case histories were written, each was then reviewed by the research staff members and by informants in the school's districts. These case histories are presented in Chapter IV of this report.

Data Analysis

From the onset, it must be emphasized that the primary purpose of this longitudinal study is to identify those factors that promote or retard change and to relate them to the adaptations they foster. The results from the first year, reported here, concern the adoption phase of that change process. The analysis of the data encompassed two interrelated phases. First, the data were organized and analyzed in relationship to the current change literature. Second, data were organized into conceptual categories as suggested by the data themselves.

The initial task was to organize the data in terms of their relationship to the change models discussed in Chapter II, Problem Solving; Linkage; Social Interaction; Research, Development, and Diffusion; CBAM; and the IGE Implementation Model. Each of the models' critical descriptive and definitive characteristics were identified. Once identified, each case study was compared to the characteristics of each model and the adoption events of the individual sites were discussed in terms of the explanatory power of the models.

The data were also analyzed in terms of the A VICTORY list. While the A VICTORY list does not attempt to explain the adoption process from a "theory" viewpoint, it does suggest conditions conducive to the adoption of an innovation. Each of the eight factors of the A VICTORY list was discussed in light of their relative importance in the adoption history of the 13 sites. This analysis provided an additional perspective to aid in understanding the events in each of the 13 sites.

A final comparison with the case studies was made in terms of the IGE adoption literature. Our key concern was to compare the results from the previous IGE literature to our data base in terms of the following:

1. the decision-making process, specified for role categories;
2. factors influencing the decision-making process;
3. other supplementary findings.

The results of the preceding analyses yielded,

1. descriptive vignettes of the innovation adoption history in each of 13 sites;
2. a comparative discussion relating the individual case studies to the primary characteristics of the six change models;
3. an analysis of the case study data in light of the eight factors from the A VICTORY list; and
4. a comparative discussion of the case study findings with respect to the findings from previous IGE research studies.

Briefly, these analyses highlighted the limitations of the traditional change models in accounting for school district change, pointed out the relative importance of some previously identified factors and some additional newly identified change factors, and indicated the similarities and inconsistencies with previous IGE studies. These summary findings will be discussed in further detail in the final chapter.

CHAPTER IV

PRESENTATION OF THE DATA

Chapter IV presents the data in the adoption phase of the change process. Data collected in the 13 sites are organized and presented in a case study format, one case study for each.

Each case study contains two parts. Part one contains narrative accounts of the events occurring from the time IGE became known in each site to the point at which the innovation was first used in the classroom. The second part presents a chronology of key events in the adoption process.

Lakeside Schools

By current standards Lakeside is one of the country's larger urban centers. Both its problems and hopes are similar to those of other urban centers. It is a constant struggle to successfully cope with meeting increased financial demands, maintaining a sound economic base, and establishing workable relationships with the diverse resident population. Like many other urban areas in the late 1960's, Lakeside was the site of riots resulting from racial tensions.

Three schools in the present research, Mercury, York, and Star Schools, are in the Lakeside Public School System. A partnership between the Wisconsin R & D Center and the Lakeside Public Schools had been established in the mid-1960's when efforts were initiated to improve elementary school instruction. This partnership led to the establishment of two IGE schools in the late 1960's.

In the early 1970's the district, in an attempt to improve instruction in its schools, initiated a plan by which the district would fund programs developed and approved by schools' staffs. Funding of the proposed programs were, however, subject to approval of the central administration. Three programs which incorporated IGE were approved and implemented under this district plan.

During the early 1970's, the district also experienced a tremendous increase in student population within one area of the district. Because the increase was confined to a relatively small area, the construction of several schools became necessary. Two of the newly constructed schools, Mercury and York, are part of the present study. The events leading to their adoption of IGE are detailed in two of the following case study reports.

Following a long and bitter desegregation suit, in 1976 the court found the Lakeside School District guilty of practices which created and maintained segregated schools. A desegregation order followed. The third Lakeside school participating in the study, Star School, began implementing IGE shortly after the desegregation order. The case study of its IGE adoption is included in this chapter.

Mercury School

What happens when a school system must respond to conditions over which it has little or no control? How can a new school result from those conditions? This case study illustrates such an event.

The construction of the school and the implementation of two educational innovations, Individually Guided Education (IGE) and Developing Mathematical Processes (DMP), had their beginnings six years before the school itself was constructed. The Mercury School story presents a kaleidoscope of events all leading to the creation of a new educational program implemented by a new staff under the leadership of a new principal and all housed in a new facility.

The story begins in the late 1960's in the south central section of the city, a relatively quiet and generally inaccessible area. The completion of a major segment of the city's internal freeway system and the area's earlier annexation to the city and the city school system created conditions which promoted land speculation and development. This resulted in a dramatic increase in the number of single and multiple family dwellings. Subsequent enrollments at each of the area's two local schools, Ridge and Adams, increased at alarming rates and soon exceeded building maximums. A third area school, Kennedy, was slated to open in 1971. Cleveland School, with a projected opening of 1972, was also adjacent to the area. New families still arrived in increasingly large numbers. The two new schools would not be completed in time to ease the overcrowding at the two existing schools; something had to be done. The Mercury story attempts to unravel the series of events brought about by the conditions that existed in this area of the city as the school system attempted to alleviate the mounting pressures at Adams and Ridge Schools. Of particular interest are those conditions impinging upon the parents of students attending

Ridge School, those that successfully influenced the decision to build Mercury Elementary School.

The construction of over 3,000 residential units with the complementary increase in the number of families with school-age children was a key event leading to the unfolding of the Mercury drama. In 1968, approval was granted for the construction of over 250 new residential units. The following year 121 units were approved. During the next two years, 1970-71, observers witnessed a staggering increase in new residential unit approvals. Over 60 new government subsidized homes (commonly referred to as 235s) were concentrated in one area, and a large number of students were anticipated from these homes. In this section of the city, the Sunset area, a total of 3,003 new resident units were approved between the years 1968 and 1971. The number of students at Ridge School increased from 606 in 1968 to reach a peak of 920 in December 1970. Given the 713-student capacity of Ridge School, the problem of dealing with increasing enrollments demanded both short- and long-range solutions.

Redistricting was the method the district used to cope with increasing student enrollment. The redistricting process began in December 1970 with a meeting of principals from those schools affected by redistricting and central administration representatives from three major divisions. A five-point prototype for staff and parent involvement in the redistricting process was recommended.

Step 1: A preliminary meeting of principals affected by redistricting and representatives from key divisions of the district's administrative staff will be held.

Step 2: A meeting or meetings of principals, boards of community groups, and administration representatives will meet for the purpose of developing recommendations for a larger meeting of parents. Site, format, chairmanship, and details will then be discussed, but the final decision will be made by the Community-Staff-Liaison Division.

Step 3: One or more meetings with parents will be held in the affected areas to explain the parameters of the redistricting problem. At the meetings representatives of all divisions should be involved with responsibility for coordination belonging to the Community-Staff-Liaison Division.

Step 4: Upon completion of hearings, the final districting plan should be developed and submitted to the superintendent, and the final districting plan shall be submitted to the Board's Building Committee.

Step 5: At the earliest possible opportunity, parents in the area should be informed that the redistricting plan will be considered by the Committee (Memorandum, Lakeside Public Schools, 11/70).

On December 16, 1970, a meeting of parents of students attending Adams and Ridge Schools was held at Adams. The agenda was structured to gather suggestions from parents and staff members. Small conference groups were organized with each group recording individual as well as group suggestions. A variety of concerns were noted in several areas, starred items appearing with greatest frequency.

Students

*1. Let children in sixth grade stay at present school (bussing problem).

*2. Do not have children change in the middle of the school year. Might lead to emotional problems. Wait until September.

*3. Some students will change now and again in 1972. Avoid this (Cleveland School).

4. Sidewalks needed for children walking to school. Especially Kennedy district. Safety reasons. Keep suburbia living; no sidewalks.

5. Important that students stay with same teacher.

6. Problem for some children will be making the change from bussing to walking. Change too abrupt.

7. Give student choice of staying at present school.

Boundaries

*1. Keep Shady Meadows area in Adams district.

2. Set boundaries based on projected attendance in the next three to five years so children will not be moved again or bussed.

3. Make districts so students could walk to school. Save taxpayer money.

4. Large influx of children expected in area bounded by Wilson Road and Elm Road.

New Facilities

*1. Closer look at possible new schools due to rapid growth in area. Coordinate housing projects with new schools. More advance planning.

*2. Where will new junior high be built? What about the one planned for 79th and Dudley? 82nd and Johnson?

3. Addition to Kennedy, immediately, to accommodate large town-house development. Capacity will be reached in a few years.

4. Projected site for new school should be studied now [Site 5, which became Mercury Elementary School].

5. Question value of Cleveland School. Better location should be found.

6. When building Cleveland, make sure capacity is 800.

7. Build Cleveland now.

8. What about school on Apex site?

Bussing

*1. Bus children to Kennedy. Unsafe area.

2. Bus children in outlying areas to more distant school.

3. Avoid bussing other students into schools when enrollment goes down.

Curriculum, Staffing, and Class Size

*1. Why aren't students and staff involved in new curriculum at Kennedy?

*2. Keep class size down so new children can be absorbed into classes without reaching capacity.

*3. Involve parents when discussing new projected programs.

*4. Teachers should stay with their classes.

*5. Sending students from traditional school to experimental school in middle of year is bad. Concern about this "experimental program." [The program at Kennedy School.]

6. Must have qualified staff for team teaching.

7. Concern on how Kennedy will be staffed.

8. Will Kennedy have complete curriculum offerings (music, etc.)?

9. Team teaching leads to less individual attention on part of student. Cannot identify with one teacher.

10. Hope to have more extra-curricular activities at schools.

Parent Activities

*1. Parents should be involved at much earlier time.

*2. School board will do what they want anyway.

*3. Better public relations between central office and parents.

4. Are parents really heard?

5. PTA should have discussed these problems instead of "Mickey Mouse" programs.

6. Parents given too little information too late.

7. Decision should not be made by emotional parents but by a computer. Same results with less trouble.

8. Teachers only record what they agree with.

9. Homeowners have preference over families who rent.

On December 21, 1970, representatives of the three central office divisions met to consider the parental concerns in terms of their desirability and feasibility. The following recommendations resulted from that meeting:

Redistricting

1. That the Kennedy School be opened in February 1971 for grades K-6, and the district to include the portion of the Adams School District south of Wilson Road, with the exception of the Shady Meadows area.

2. That the Adams School District extend to the city limits on the west, to include the portion of the present Ridge School District north of Wilson Road, and include the Shady Meadows area, presently part of the Adams School District.

3. That the Ridge School District's northern boundary be Wilson Road.

4. That sixth grade pupils at Adams and Ridge Schools be given the option of remaining at the school of the former district or moving to the school in the newly defined district.

5. That the Kennedy Elementary School district be attached to the Zimmer Junior High School District and the Oak Senior High School District.

Curriculum

1. The Instructional Services Division should continue with its planning for the implementation of the unitized [this is the district's term for the multiunit school in an IGE setting] approach.

2. The unitized approach should be implemented in two phases, Phase I (opening of Kennedy School to September) to include planning and inservice education for the unitized approach, and Phase II (September 1971) to be implementation of the unitized approach.

Administration

1. Mr. Slate and the Danger Review Panel should review alleged hazards in the Kennedy School District.

2. Because of the anticipated rapid growth in the area in the next few months, classes at the three schools should be overstaffed to preclude the necessity of restaffing during the semester.

Public Relations

1. A program of parental involvement for Kennedy School parents apprehensive about the new program should be part of Phase I of the program.

2. Parents concerned about future overcrowding because of rapid building should be aware of the administration and board's long-range plans for the area.

3. Committees should become active in areas where future schools are presently identified, such as Cleveland and Truman.

4. Parents should be made aware that their concern that future redistricting be based on both availability of space and closeness to schools is part of our long-range consideration.

On January 5, 1971, the Board's Building Committee concurred with the above recommendations. William Bedlow, executive director, sent letters to participants of the parent meetings thanking them for their participation and notifying them of the committee's action.

In late April 1971, the Personnel and Services Division distributed a list of the 14 projects identified for completion in the five-year school building and sites program. All projects had received Board approal. Project 14 was known as Site 5. In keeping with the previously described procedures for redistricting, each site was assigned a School-Community Committee. A specific principal was named as chairperson for each committee. Other members, though not named, were to include teachers, parents, community members, students, staff members, and a Lakeside Teachers Association (LTA) representative. A resource team composed of individuals from six different administrative divisions was identified and assigned to each Committee. At this time, Project 14 was designated inactive.

One week following the publication of the 14 projects in the five-year program, a letter to district administrators was sent by the superintendent, Roberts, and his deputy superintendent, Neil. The letter outlined the history of the five-year building and sites program (for the years 1970-74) and the amount of money committed to it. Guidelines for the functioning of the School-Community Committee, the central office division, and the Board were described. The School-Community Committee was described as "advisory to the principal." This was emphasized as the relationship between the principal and committee members was detailed. "As the principal works with the School-Community Committee, he will consider the total group's ideas, majority and minority expressions, and any group consensus and then determine his own recommendation. Recommendations will not be based on voting by the committee." The spirit of involvement was made in a report to the board when the superintendent stated, "In the planning of any individual project, we will need to reflect not only the aspirations of the local school-community and its professional educators but also the aspirations of the citizens of Lakeside and the nation as a whole for learners in the instructional program."

Support for activating Site 5 began with a March 8, 1971, letter from Mr. Rice, principal of Ridge School, to the assistant superintendent of the Planning Division. Rice expressed support for Site 5 as a relief for the anticipated overcrowding at Ridge. Rice also emphasized that the new prototype for involving parents, educators, student, and community leaders should begin. He cited several pertinent facts. First, Ridge was currently at an enrollment of 643 while the maximum was 713. Second, over 60 new government homes (235s) were being added to the Oakdale area. And, third, the new homes would increase the number of students already being bussed from that area by an additional 113 students. The construction of a school on Site 5 would not only relieve overcrowding at Ridge but also provide a school close to the Robinwood area. A response to Rice's letter came the following day. The assistant superintendent assigned Donald Metz, research director, to work with Rice to gather the "demographic data. . .so we can then, after analysis, determine the various alternatives available to use so that decisions can be made. . . ."

By January 1972, overcrowding at Ridge began to reach the crisis level. The problem no longer was anticipated; it was real. Rice took matters into his own hands; parental involvement began.

On January 6, 1972, a meeting of Ridge parents scheduled by Rice was held. The meeting, with presentations by Rice and central office representatives, was designed to obtain ideas and suggestions from parents. There were 123 parents (about 20 percent of the Ridge families) in attendance. It was during this meeting that enrollment figures for Ridge were made available to the parents. A summary is presented below.

	September			December	January
	1968	1969	1970	1970	1972
Ridge (Capacity 713)	609	676	787	887	767

-- Construction of Kennedy School completed January 1971.

-- Construction of Cleveland School to be completed September 1972.

-- September 1971 -- two classes bussed to Washington School from Ridge.

During the meeting, small conference groups were formed to elicit parental suggestions. The suggestions were as follows:

*Type	Alternative	Degree of Support
1. LR	Push for immediate construction of Site 5.	37 individuals plus 4 groups
2. SR	Redistrict area "10."	12 individuals plus 3 groups
3. SR	Whatever is done, do not use the gym for housing classes.	6 individuals plus 2 groups
4. IR	Use of portable classrooms.	19 individuals plus 1 group
5. SR	Do not bus children.	7 individuals plus 1 group
6. SR	Cut off new admissions to Ridge, bus them out.	7 individuals plus 1 group
7. IR	Year-round school.	5 individuals plus 1 group
8. IR	Build an addition to Ridge School.	3 individuals plus 1 group
9. SR-IR	Redistrict area "10a."	1 individual plus 1 group
10. SR	Bus children.	1 group
11. SR	Do not redistrict area "10."	3 individuals
12. IR	Do not use portable classrooms.	1 individual

*LR = Long Range; IR = Intermediate Range; SR = Short Range

The results of the meeting caused a flurry of activity. Four days after the parent meeting an inter-office memo summarizing the meeting results was sent to Niles, program specialist, from Evans, his assistant.

A second parent meeting was held on January 19, 1972. One-hundred twenty parents voted on the various alternatives. At this meeting, 73 parents wanted classes housed in the gym, 30 parents opposed this alternative , and 18 abstained.

The choice appeared to be centered around two alternatives, (a) bus students to neighboring schools, and (b) use Ridge School facilities (specifically the gym) to handle the overflow of students. The unanimous staff reaction was to oppose the use of the gym. Six specific educational disadvantages were given by staff members. Three advantages were detailed in support of bussing to Lincoln School.

Rice, using the results of the two parent meetings and several meetings with the staff made the following decision: Recommend to the superintendent that the middle primary students in rooms 15 and 26 be bussed to Lincoln School as of January 25, 1972. The recommendation, in addition to the factors leading to it as outlined above, was communicated to parents in the form of a letter dated January 21, 1972. Rice further recommended:

1. Consideration be given to the immediate development of Site 5.

2. Redistrict the area known as Maple Glen subdivision to Jefferson School for September 1972.

3. Redistrict area north of Birch Avenue to Cleveland School for September 1972.

Also on January 21, 1972, a letter from the president of the Association of Ridge School Parents (ARSP) was sent to the secretary of the Lakeside Board of Education. In her letter, the president reviewed the history of Ridge School enrollments, the rising number of residential housing units, and the efforts of the parents to help resolve the overcrowding of Ridge School. She detailed three recommendations of the parents in the Ridge School

District as follows:

1. Site 5 be immediately developed.

2. The Planning Division immediately take the necessary action to alleviate overcrowding while Site 5 is being developed.

3. The Lakeside Board of Education immediately provide parents specific guidelines and alternatives for both short-range and long-range solutions to the problem which presently prohibits all children involved from receiving the quality of education which they deserve and to which they are entitled.

The Board's Building Committee met and recommended that three classes (68 students) be transported from Ridge to Lincoln School effective January 25, 1972. The committee's recommendation received board approval on February 1, 1972.

On February 1, 1972, Rice sent a letter to Niles indicating that the recent decision to transport the 68 students from Ridge to Lincoln had been accepted by parents "without too many complaints." Knowing that the bussing of now five classrooms was only a temporary solution, Rice again made several specific recommendations to alleviate the bussing problem for the next school year:

1. Immediate consideration be given to build a school on Site 5.

2. Redistrict area known as Maple Glen Subdivision to Jefferson School beginning September 1972.

3. Redistrict area north of Birch Avenue to Cleveland School beginning September 1972.

4. Study possibility of junior high school for 1974 or 1975 on Site 4.

5. Establish a standing committee of parents from the ARSP to study school enrollments.

Rice also enclosed a copy of his May 17, 1971 letter to the assistant superintendent which detailed his concern about increasing enrollments and his recommendations for meeting th resultant problems.

Parental efforts now became more organized. The ARSP took action. On February 2, 1972, the first meeting of the ARSP Study Committee was held. Two objectives guided the committee's work: (a) to push for the construction of a new school (Site 5), and (b) to seek intermediate solutions (during the time Site 5 was being developed). A report on all the previous events leading up to this meeting was given by Rice. Alderman Smith gave a report to update everyone on the housing situation and proposed developments in the Ridge School area. Mr. Brown, co-chairman of the ARSP Study Committee, reported that their letter of January 21, 1972, had been discussed at the board's February 1, 1972 meeting. The first two recommendations suggested in the letter were referred to the Facility Management Committee and the third recommendation to the Building Committee.

The ARSP Study Committee decided to form two subgroups: (a) the School Construction Committee (17 members), and (b) the Temporary Conditions Committee (19 members). It was also decided to meet with school administration representatives on February 17, "to obtain information, guidelines for action, and learn what role the parents' group can play." A general meeting of the ARSP was set for February 24 to inform parents on the study group's progress.

In the following week, an interoffice memo was sent to Evans from Metz concerning transportable classrooms. In addition to indicating that monies in the budget did not provide for such classrooms, the overall information discouraged their use. The memo contained the following statement: "If a permanent building is intended for the site, and the temporary classrooms are purchased, it is likely that the new building will not be built on schedule and another needed school would be built instead." Evans also provided school enrollment figures to the chairperson of the Temporary Conditions Committee. The letter specifying the enrollment figures also included a copy of the Evans memo discussing the transportable classrooms.

On February 8, 1972, Rice was requested, in writing, by the assistant superintendent of the Personnel and Services Division to assume chairmanship for the capital improvement planning for Site 5. Project 14, construction of an elementary school on Site 5, was now active. The assistant superintendent also indicated that a school program specialist would be available to coordinate the central office resource team. Rice also received copies of the guidelines principals were to follow in providing leadership in the district's capital improvement projects. Action was to begin immediately.

Site 5 Committee Begins

Beginning with the February 17, 1972 meeting and continuing throughout the next several months, the School Construction Committee of the ARSP met to discuss new programs in education, recreation, and special education. School visits were made by committee members to several schools in the Lakeside Public School System and surrounding districts. The committee's work culminated in a Principal's Planning Report. Recommendations for the building design and educational program for Site 5 were in the report.

The general direction and format may have been set by Metz at the February 17 meeting. The meeting began with Rice suggesting the formation of two sub-committees, one for the design of the school and one for the curriculum. Metz responded by indicating "an architect would be hired so that we should be more interested in the type of curriculum we wanted, as this would help to decide the design in many ways." He then described three types of buildings currently being constructed. Kennedy, Cleveland, and York Schools were used to illustrate each.

Metz also recommended that the report be filed in the superintendent's office by June. From there, according to Metz, the report would be forwarded to the board for approval and inclusion in the 1973 construction budget. Several specifics were also suggested by Metz, (a) school opening was set for fall of 1974, (b) approximately 1.5 million dollars would be used for Site 5, (c) student population should range from 500 to 750, but "600 was nice," and (d) Site 5 contained almost 5 acres of land. Metz concluded by suggesting that committee members visit schools with the different building designs. He then stated that the "open space type of building as his favorite." The committee remained as a single group, not sub-dividing into two as suggested by Rice.

A concern for curriculum focused future committee activities.

On February 21, 1972, a letter was sent to parents announcing a February 24, 1972 meeting of the ARSP. The meeting, held in the Ridge School gymnasium, was structured to get parent reaction to advisory suggestions of the School Construction Committee and the Temporary Conditions Committee. The letter also contained a fact sheet summarizing the work of each committee. The School Construction Committee fact sheet indicated the following:

1. Site 5 had been activated and Rice appointed chairman. (A copy of the appointment letter was attached.)

2. Rice will appoint a committee of parents, teachers, LTA representatives, and community businessmen.

3. Metz's recommendations from the February 17, 1972 meeting were outlined.

4. The committee is advisory and makes recommendations to the principal who recommends to the school administration. (It was specified that Metz had defined the committee's role in this way.)

On February 29, 1972, the Board's Building Committee discussed the problem of overcrowding at Ridge. It was recommended that the administrative staff work with the principal, staff, and community members to develop a plan, including suggestions presented at the February 17 meeting of the ARSP study group and central administration, to accommodate the continuous population growth in the Ridge School area. It was also recommended that the educational planning for Site 5 begin immediately.

Although the planning continued to focus on overcrowding at Ridge School, our concern in this study is Site 5, so this case study will continue in only that direction. Redistricting and its related problems at Ridge School will be discussed only as they relate to the development of Site 5.

On March 1, 1972, a memo was sent by Niles to the Site 5 Resource Team announcing that its initial meeting with Rice was scheduled for March 7, 1972. Also on March 1, Rice sent letters to parents soliciting their participation in the Site 5 Committee. All interested individuals were invited to attend the committee's first meeting, March 6, 1972. The committee's task, as outlined in the letter, was to "plan, create, and develop a curriculum and building to meet the educational needs of their children. Those parents who are interested in new concepts in education and curriculum are encouraged to submit their names and join me in this educational endeavor." Rice credited the Association of Ridge School Parents as the group that made Site 5 a reality: "The efforts and concerns of the ARSP to provide relief for the overcrowded conditions at Ridge School has caused the school administration to activate building an elementary school on Site 5."

The March 6, 1972 meeting was the point at which the School Construction Committee of the ARSP became the Site 5 Committee. Thirteen people, including Rice, were in attendance.

Organizational concerns dominated the committee's first meeting. Several local business and community representatives who would be asked to participate on the committee were identified. It was decided that all future meetings would be taped so that "absentee members will be given an opportunity to learn the business conducted in their absences." A suggestion was made to invite a junior high school principal to "express the needs of the child beyond the elementary school level, and to inform [the committee] as to what type of program will lend itself to a smooth transition from elementary to high school."

Suggestions that related more directly the committee's task were also made. Three schools were suggested for possible visitation. One school, Kennedy, represented a transitional program; another, Brook School, was traditional; and a third, Cedar School, was using an individualized learning approach. Since the type of curriculum offered by the school would determine the specifics of the building design, it was agreed that their next meeting would begin exploring some of the educational programs currently offered to students in the Lakeside Public School System. Ms. Chambers, Department of Classroom Services, was invited to discuss the "non-graded school and the individualized approach to learning philosophies." Ms. Hall, principal of Kennedy School (an IGE school), would discuss the "practical application of these [non-graded and individualized learning] philosophies in a functioning building." Rice offered to make the necessary arrangements for Chambers and Hall to be present at their next meeting.

Fourteen members attended the second meeting on March 20, 1972. Nine of the members had also attended the first meeting. IGE, as discussed in presentations by Chambers and Hall, was the focus of the meeting. General comments about learning styles and teaching methodologies were used to orient members toward the goals of IGE.

The presentation depicted IGE as it was being implemented at Kennedy. In addition to Kennedy, IGE was being used in three other Lakeside schools. In presenting a background for IGE, it was indicated that,

1. IGE was developed by the Wisconsin Research and Development Center at Madison and was funded by the U. S. Office of Education.

2. In Wisconsin, the number of IGE schools grew from 90 in 1970-71 school year to approximately 155 schools in 1971-72 school year.

3. IGE was given priority by the State Department of Instruction in 1965 (such priority status actually given in 1967).

4. IGE was being implemented in ten other states.

5. The organizational and instructional aspects of IGE are "two very different parts." While the organizational structure of two schools may be very similar, their instructional programs may be very different.

6. IGE could be characterized by teaming, non-graded classes, differentiated staffing, flexible scheduling, multiage grouping, individualized instruction, and a supporting leadership structure.

Specifics detailing the parts of IGE described above were given. Slides showing IGE in action at Kennedy were also used to explain how IGE works. Parent questions centered around student assessment, teacher planning, student grouping, and the importance of having knowledgeable teachers in order to make the program work.

Two issues were raised midway through the meeting. They arose when Chambers and Hall, in answering questions, began to move from a position of presenting information on IGE to that of defending it. The first issue focused around the following question by a parent: "Who will decide what will be at Site 5?" In response, Rice reviewed the procedure to be followed by the committee. A second issue related to IGE when another parent stated she was concerned that the school administration was going to force "that" program that was being used in "those" schools with "these" kids out here in the "suburban" areas. The implication was related to the fact that IGE was being used in Lakeside's inner-city schools. In response, Chambers responded that IGE was also used at Arthur School, a non-inner-city school. Parents were also assured by Rice that no attempt would be made by school district staff to force IGE on them or on any other school.

Late March snowstorms caused several cancellations of the committee's third meeting, and it wasn't until April 19, 1972, that a meeting could be held. Eleven members were present. Of these, seven had attended the first two meetings. Continuing the search for information about programs currently used in the Lakeside Public School System, this meeting focused on programs in the primary and kindergarten areas. Three staff members from the district's Department of Classroom Services were present to describe district programs. Attention was directed towards the open classroom program and was presented from the British Infant School orientation. The committee minutes give the following summary:

"The concept of open classroom education was discussed at a prior meeting and it was mentioned that current trends are leaning towards this type of program."

A description of Lakeside's primary program was made. Emphasis was given to its non-graded character, which was begun in Lakeside in the early 1940's. Slides were used to augment the points stressed in the presentation.

Responses were made to the following questions:

1. Can there be opportunities for one group at a hub for individualization while another group works in a structured classroom?

2. Will there be flexibility that allows parents to choose the type of program their child goes into?

3. How long would it take a child to move from the present structural system to an open concept?

4. No matter what plan we pick, how can parents be assured teachers will be interested in the program developed?

In response to the last question, it was suggested that a representative from the teachers union, the LTA, address the issue. Another committee member suggested inviting someone from the personnel department. The issue, as described by the committee, was that they did not want teachers assigned soley on seniority; they wanted teachers assigned who wanted to be there.

On April 28, 1972, Rice sent a letter inviting parents to the committee's next meeting, May 3, 1978. Parents were also informed in the letter that a group visited Cedar School and that two future school visits were planned, Kennedy School on May 8 and

Homer School on May 17. Parents were invited to attend the school visits.

Sixteen members were present for the May 3 meeting, but only six had attended all the previous meetings. One area alderperson, Mr. Smith, was present. The area administration from the Recreation Department was present to discuss the department's different recreation programs and what must be considered in order to provide them at a school.

The committee made several suggestions related to recreation programs:

1. A large craft center for the school could be used by students during the day and by adult groups in the evening.

2. Consideration of playground equipment for the new site be included in the plan.

3. Storage areas and lavatories should be provided close to playground areas.

An announcement for the May 31, 1972 meeting was sent to parents by Rice. The topic for the meeting was special education. Ms. Lutz, Special Services Division, was billed as the program speaker. Despite the fact that the meeting was held after Memorial Day, 12 people were present. The cadre of six, those present at all of the preceding meetings, was in attendance. Following a presentation outlining the needs of special education students and the type of program needed to meet those needs, the IGE program was cited by a committee member as fitting very well. The comment was followed by a question about whether there is a specific way to deal with learning problems and if IGE would be a good way. The presenter was not aware of the specifics of IGE but responded that there isn't any specific way to deal with learning problems. Rice cautioned that IGE was not going to be a solution to all educational problems. He then gave a brief overview of IGE to show how IGE and special education may form a natural blend between a program and student needs.

Following the special education presentation, the meeting shifted to the specifics to be included in the committee's final report. Committee members began by using the York School report as a guide, taking from it what they thought was important and deleting what was inappropriate. A summary of concerns was given in the committee minutes.

1. Educational philosophy for the open school was suggested.
2. Material bank for grade levels was considered important.
3. The utilization of the land and design of the building was discussed and attention given to the fact that the area is quite small.
4. Gym/lunch area combination was compared to the separation of these facilities. The provision of large enough facilities to accommodate both physical education and lunch without the hindrance of each program to the other. Is it possible to have a separate gym and a lunch/multipurpose room divided by a retractable wall?
5. Present to parents the ideas and suggestions of the committee at a general meeting prior to the final drafting of our Site 5 suggestions.

6. Each committee member was asked to review and mark ideas they found in the York School Report that we would like to include in our thinking for Site 5.

Sixteen members were present for the June 5, 1972 meeting. The cadre of six was again present. At this meeting, members began writing suggestions to be included in the report. The minutes best summarize those suggestions:

1. The development of a school philosophy and, consequently, an educational program for a school takes a long time and a lot of thought to develop. The concerns to developing an open classroom concept regarding cross talk and distractions should be taken into consideration.

2. The visit to Homer School gave parents an opportunity to witness whatever distractions or cross talk an open classroom would present. The impression was that teachers, students, and parents did not notice this as a problem to overcome within the school.

3. The kindergarten through third grade age group in one school was found in a self-contained learning condition until they had learned to develop good study habits and were capable of taking on an open classroom concept. The use of flexible walls would allow for children and teachers to slowly progress into this concept.

4. Some parents were interested in maintaining the basic traditional style of teaching and provide a good reading background for children.

5. There has to be the commitment of funds to the open classroom philosophy. There is a need to maintain audiovisuals and materials at the level this commitment requires. There is a need for a long-range commitment to give the teachers the tools to carry on this type of program.

6. The need for enlarged library facilities with multimedia equipment available to children should be found within or near a learning center.

7. Plans should include, if the program does not work, flexible walls to be used to separate classes as the need arises.

8. The equipment, thought, and information found in educational specifications for York School were found to be exceptional.

9. The question of whether the school board would be willing to commit themselves to a program and then not furnish it properly was brought up. The reading center would be a necessary part of the program.

10. There should be a total commitment of parents interested in this concept; this requires a continual parent/teacher involvement in talking and evaluating the pupil's progress. There has to be written and verbal communication back and forth between parent and teacher.

11. The question of following through with an open concept in the junior and senior high was brought up. Would there be an adjustment for the child coming from a school with an open concept to a more structured approach in junior high?

12. The development of the program has to have teachers dedicated to the concept, otherwise the program would have difficulties.

13. The program should begin traditionally and work towards the open concept with a gradual development taking place.

14. The foreword presented in the York Report could apply to any school, and was generally accepted by the group.

15. The inclusion of lunchroom/gym facilities will be included in the development. Kitchen facilities should be made available to all people within the community for functions related to their needs.

16. The teachers' room should provide for a refrigerator, hot plate, and sink to accommodate teachers during their lunch period.

17. Use of ramps would help children with physical handicaps to be included in the overall school program.

18. Opportunities to provide for children with learning disabilities should be included in the concept. Children can learn to work together and lessen the identification of children with learning problems.

19. Flexibility for change should be included. The use of a bi-level design would provide for good utilization of land area, due to the smallness of the plot. Also, a bi-level would have the learning center located for use by both levels. A larger gym with regulation size court could be divided into teaching stations.

20. Suggestion of six [grade] levels with three classroom areas within each level.

21. Adequate storage area or banks should be included at each level for teacher's use.

22. Adequate lavatory facilities along with sinks and water fountain would be a necessity in each classroom unit.

23. One room for arts/crafts should be developed for a teaching area. It should be located in easy accessibility to all areas. Some tiled area near the sink would provide for art projects within each area.

As noted above, an open classroom program, not IGE, was suggested. A review of meeting tapes, however, reveals that in the discussions IGE and open concept were used interchangeably. In addition, open concept to some members was interpreted from an educational or instructional program perspective while others interpreted it as open physical space. In general, support was high for the IGE/open concept. Some members raised objections or cautioned against it. Reasons for not supporting the IGE/open concept focused upon pupil reporting procedures and the practice of random assignment of students to multiage groups. One member questioned the options of the committee given that York School would use IGE. Another member thought non-gradedness had to do with report cards. Another suggested that teachers, not parents, support IGE. In response to a member's asking if IGE guarantees higher student test scores, another member stated that the people who implement the program make the difference.

At the June 12 meeting, the committee's response to Rice's first draft was extremely positive. Why was IGE specifically designated as the program to be used in Site 5? Rice reported that he sensed that IGE was the program that the committee felt most comfortable with and would generally support. Rice indicated he would prepare the final report and submit it to the superintendent's office for review. Rice, during one interview, stated that the central office staff had only two weeks in which to prepare the report for board action.

During the June 12 meeting, the school name "Mercury" was suggested by Rice. According to Rice, Mercury had been the name of the elementary school that served the area prior to its inclusion in the Lakeside Public School System. The original school had been razed to make way for a portion of the freeway. Site 5 was just three blocks from that site. In addition, Rice had been principal of the original Mercury School.

A related topic surfaced around the issue of staffing the new school. The LTA representative noted that his information suggests that when teachers interview other teachers to "join" their team only about one out of ten applicants is considered suitable. He further suggested that the school begin with a traditional program and work up to a "unitized" teaching approach. He also suggested that parents should meet with the board and the LTA representative to ensure that there would not be any problems in staffing.

The meeting then shifted to a general discussion. Several minutes were spent talking about the qualifications for the principal of Site 5. Some members suggested Rice might be a good principal for the school. Rice indicated he was happy at Ridge. In the discussion of the principalship, it was mentioned that the school staff and principal would operate within the framework of the Instructional Programming Model.

Following approval of the principal's Site 5 Report by the superintendent's office, the report was sent to the Board of Education and approved. Construction and program planning for Site 5 could now begin.

IGE at Mercury grew closer to reality with the appointment of Dorothy Foster as building principal. When appointed, Foster was assistant principal at South Elementary School. Previous to that she was a staff member in the district's Division of Classroom Services. Her particular expertise was in the area of reading. In her central office supervisory position, she became involved with the Wisconsin Design for Reading Skill Development (WDRSD) and the schools using it, several of which were also more extensively involved in IGE. Her curriculum work had familiarized her with the math program being developed at the Wisconsin Research and Development Center, Developing Mathematical Processes (DMP). These four factors--administrative experience, experience with WDRSD, working with IGE schools, and a knowledge of DMP--were to play a part in future decisions relative to her role as principal of Mercury School.

While confronted with the myriad of tasks that are part and parcel to opening a new school, the selection of staff loomed as one of Foster's major responsibilities. Staff selection was conducted with the principal of York School, another new IGE school. The selection process began by sending job postings to the different schools throughout the district to afford current staff members transfer opportunities. The postings made it clear that IGE was going to be the educational program at Mercury. Interested teachers contacted Foster, who subsequently met with the prospective staff members to give them a brief overview of what they could expect if they were selected as a member of the Mercury staff. In addition, several general meetings were held for interested staff members. Robert Sparks, a staff member of the Wisconsin State Department of Public Instruction and State IGE Coordinator, participated in these meetings. In both the individual meetings and the general meetings, Foster also described the type of school in which teachers would be located--open and pod. Mercury and York Schools were the first two pod and open space schools in the Lakeside system.

Some discrepancies were noted in the criteria used for staff selection. Although Foster described general criteria she was looking for in the candidates, she indicated that the final selection would be based on seniority. Staff members believed that more than just seniority was involved. One original staff member still teaching in the school summed it up as follows:

> . . .and people were not selected by seniority necessarily. You cannot have a staff of 24-year-old kids, but then you can't have a staff of 50-year-old dinosaurs either; you have to have a cross-section and I think that this school was staffed with some vets and some "newees."

By August 1974, all staff were selected and a 40-hour inservice was planned. Mary Lee was then the district's IGE facilitator, and it was her responsibility to provide the inservice program for all staff. The 40 hours of inservice were required by and outlined in the master contract negotiated between the LTA and the Lakeside Board of Education. All teachers were paid to attend. While attendance was not required, it was, according to Lee, strongly recommended. With the exception of the special teachers, the teaching staff from both Mercury and York attended.

Two underlying conditions were identified by Lee as significant in determining the format for the inservice program. Both school staffs were not only new to IGE but to each other as well. Thus, according to Lee, it was important to make the socialization process a major component of the inservice. The second condition revolved around the fact that the total staff from each school was present. This, Lee reported, permitted each staff to put IGE into practice in a "real world sense."

The workshop began with a series of human relations activities that permitted staff members to become acquainted with each other. This also permitted the principal to observe staff members and finalize the selection of unit leaders. The basics of IGE, its components, staff roles and responsibilities, and the process of individualizing instruction were discussed. This background was then used by teams to plan a lesson that exhibited the use of IGE. Each lesson was presented to the total group. The workshop concluded by permitting each of the teams to begin planning for the opening of school, particularly the first three or four days.

During the workshop training materials developed by /I/D/E/A/ of the Kettering Foundation and the Wisconsin R & D Center were used.

Lee stated it was important to use both because each has strengths and weaknesses. Sparks also assisted in the inservice although the primary trainer was Lee.

Selection of curricular materials was also Foster's responsibility. Foster's prior experience helped to shape her decision to purchase DMP as the school's mathematics program. She received favorable recommendations for the materials from her colleagues in the Department of Classroom Services who were more knowledgeable about DMP. In addition, she observed DMP in use at Arthur School and discussed its use with staff teachers and principal. Foster reported, "The decision to use DMP was strictly mine."

Although some ceilings were still missing, carpets had to be laid, one pod was without lights, and all the furniture had not arrived, in September 1974, Mercury Elementary School opened its doors for the first time. It contained a new principal, new staff, new materials, new students and parents, and a program called Individually Guided Education.

Chronology of Adoption Events (Mercury School)

1968-70 --Increases in student enrollment caused Ridge Elementary School to become overcrowded.

12/8/1970 --Redistricting meeting to present five-point prototype design for staff and parent involvement. Principals and central office representatives in attendance.

12/16/1970 --Parent meeting for parents of students attending Ridge and Adams Schools. Purpose was to discuss the redistricting problem.

12/21/1970 --Meeting of central office representatives to review parent concerns from the 12/16/70 meeting and to make recommendations to Neil, Assistant Superintendent.

1/1/1971 --Lakeside Board of Education's Building Committee concurs with superintendent's recommendation for boundary changes at Ridge and Adams Schools.

4/30/1971 --Site #5 (Mercury School) included as one of 14 projects in the district's five-year building program. Site #5 is designated as inactive.

5/17/1971 --Rice, Principal of Ridge School, sends a letter to the assistant superintendent encouraging the activation of Site #5 as a means of relief for Ridge School.

1/16/1972 --Association of Ridge School Parents (ARSP) meeting to discuss overcrowding.

1/19/1972 --Follow-up meeting of ARSP.

1/21/1972 --Letter and information sheet sent to parents from Rice outlining recommendations to cope with overcrowding at Ridge. Two classrooms of students to be bussed out of Ridge.

1/25/1972 --Two classrooms bussed to Lincoln School.

2/1/1972 --Board approves transfer plan.

2/2/1972 --Ridge School Study Committee holds its first meeting, a group of parents to study long- and short-range solution to the overcrowding program. The study group is an offshoot of the ARSP.

2/8/1972 --Site #5 (Project 14) activated. Rice appointed chairperson.

2/17/1972 --Ridge School's School Construction Committee meets with administrative staff.

2/24/1972 --Ridge School Community Club meeting to inform parents of current progress on solutions to the overcrowding.

3/6/1972 --School Construction Committee now becomes known as the Site #5 Committee and holds its first organizational meeting.

3/7/1972 --Meeting of the central office Site #5 Resource Committee meeting.

3/20/1972 --Site #5 Committee meeting. IGE presented.

4/19/1972 --Site #5 Committee meeting. Kindergarten and early childhood programs presented.

4/1972 --Committee visits Cedar School, an open school in the Cedar Glen district.

5/3/1972 --Site #5 Committee meeting--city recreation program discussed.

5/8/1972 --Committee visits Kennedy School, a modified IGE program in Lakeside.

5/17/1972 --Committee visits Homer School, an open school in a neighboring district.

5/31/1972 --Site #5 Committee meeting. Special education program presented.

6/5-12/1972 --Site #5 Committee meeting to respond to the draft of Rice's report. IGE recommended as the instructional program.

1/1974 --Dorothy Foster appointed principal of Mercury School.

1-7/1974 --Mercury staff selected.

8/1974 --Inservice provided for Mercury School staff.

9/1974 --Mercury School opens.

York School

It is safe to say that behind the construction of a new school there is a story. Why, in the first place, build a school? What would cause reasonable people to build a school which when complete would require changes in the existing school boundaries and uproot students from the schools they were attending? Children are the clients and recipients of the school's educational programs. The school district can use one of two basic options to provide those educational services: (a) place the school within the residential area of the client group, or (b) bring the client group to a school outside of its residential area. There are times, however, when neither option is feasible. Such were the circumstances confronting the Lakeside Public School System when it decided to construct York Elementary School.

York School had its origin in the city's rapidly growing south central area, the same section of the city that gave rise to Mercury Elementary School. So close are the origins of each school that, although each was developed by two different committees, they were built with a similar architectural design, they opened at the same time, each selected IGE as the educational program, and the staff of each participated in the same inservice.

Why York School? The rapid increase in the number of family units being constructed in the south central area of the city meant existing schools could not accommodate the increasing number of students, and bussing to other schools was impractical because of cost, distance, and available space. A brief overview of the conditions causing the increasing student population will help describe the context for the work of the committee on Site 9, the district's designation for York School prior to its being officially named.

The year was 1969. Building permits for new residential units began to increase, foreshadowing the impending increase in school-age children. As the new units were completed and occupied, student enrollment began to grow, particularly at Ridge School, which received most of the new students. Like Ridge, Adams School was also experiencing increases in student enrollments. How did the district respond? The process of redistricting began as the district attempted to relieve pressures in the overcrowded schools.

The redistricting process was put into motion for Ridge and Adams when two joint parent meetings were held in December 1970 and early January 1971. The suggestions originating from these meetings were given to central office representatives as input for the redistricting of Ridge and Adams attendance areas. On January 22, 1971, the new boundary lines were drawn and put into effect. Approximately 350 students attending Ridge were transferred to Adams and about 575 students from Adams were transferred to the newly opened Kennedy School.

The impact of losing 575 Adams students certainly relieved, at least temporarily, the burgeoning enrollments, but loss of parental leadership was an additional effect. As a result of the redistricting, Adams School lost the entire Executive Committee of the school's PTA, about 90% of the school Advisory Committee, and all of the organizational leaders for the Boy and Girl Scouts.

In May 1971, Dave Danner, principal of Adams, was asked to serve as chairperson of two new school study committees, one to draft recommendations for Site 9 and the other to draft recommendations for Cleveland School, a new school near Site 9. A letter dated May 25, 1971, was sent to parents and community members soliciting their participation in these committees.

The first meeting of the two study committees was a joint meeting held on June 10, 1971. The meeting was tightly scheduled and began with an overview of the committee's tasks presented by Danner. Mr. Grass provided information concerning the housing development projected for the area. An overview of different learning programs in the Lakeside Public Schools was given by Chambers, a supervisor in the Division of Classroom Services. Emphasis in her presentation was on team teaching and IGE in the unitized approach. Recreational activities and adult education programs in the Lakeside Public Schools were described by Bartlett.

According to the minutes, "a lively exchange of ideas and information occurred during the next hour or so" as the committee members responded to the presentations. One area of discussion was the locations, sizes, and occupancy dates of the district schools scheduled for construction in the south central area of the district. A small group, primarily from Site 9, wanted area recreational programs started immediately. Playground equipment, school attendance areas, possible overcrowding at Adams, and learning programs were also discussed.

The first meeting was attended by 30 people. This included five central office staff members, two Adams School staff members, one LTA representative (also a Adams staff member), 10 parent/community representatives for Cleveland, and 11 representatives from Site 9. The principal of Adams, Dave Danner, was chairperson of both committees.

Members decided to concentrate on learning programs at the next meeting. During the informal discussions following the meeting, it was stated that the two committees should meet independently (Meeting Minutes, 6/71). Subsequently, the committees began to work independently of each other although Danner remained as chairperson of each.

Eight different topics were discussed during the Site 9 committee's second meeting, September 9, 1971. One topic, IGE, was discussed for a considerable length of time. IGE was considered by the committee to be "wholesome and innovative." It was during this meeting that IGE was voted upon and recommended by the committee as the educational program for Site 9.

The committee's third meeting was held on September 16, 1971. Danner explained he was unable to obtain a speaker to address a concern of the committee, that of making Site 9 a K-8 school. Discussion focused on the inclusion of grades seven and eight. Ten advantages for keeping seventh and eighth grade students in the elementary school were identified and five advantages were given for placement in the junior high school.

Several additional meetings were held in which the committee continued to explore the possible inclusion of grades seven and eight into the structure of the school on Site 9. The feasibility of including an adult education center at Site 9 was also discussed.

On October 4, 1971, two letters were sent to committee members soliciting their participation in a school visit at Eisenhower Elementary School, an open plan IGE school, and Monroe Junior High School. Visits were scheduled for October 12 and 14, respectively.

The fifth committee meeting was held on October 14, 1971. During the meeting, bibliographies containing information about creativity, team teaching, behavioral objectives, non-graded schools, and individualized teams were made available to committee members. Articles discussing the open classroom concept were also available. Discussion of the Eisenhower School visit followed. The discussion led the committee members to be "convinced that a school of this type with some form of Individually Guided Education as a learning plan was what they desired for their facility at Site 9." A visit to a second school was to be arranged. The film "One At A Time Together" was shown to committee members and was favorably received. Additional films explaining the IGE program were scheduled for succeeding meetings.

The sixth meeting of the committee, November 11, 1971, began with a discussion of the visit to Homer School on November 3, 1971. The majority of the meeting time was devoted to a discussion of the proposed learning program for Site 9, IGE. The program was summarized in the meeting minutes as "a program consisting of a team-teaching, unitized, non-graded approach." Individually Guided Education would be introduced in a selected area of the curriculum and would be consistent with the thrusts, goals, and objectives of the Lakeside Public Schools. Committee members were enthusiastic about the possibilities that such "a system could generate increased learnings and wholesome attitudes in self-reliant children."

Two other items were covered. One, the committee recommended that the school on Site 9 be known as the John D. Wilson School in honor of one of the district's former superintendents. (Board action resulted in the school being named York Elementary School after the former town name of the geographic area in which the school was located. The board felt that a larger school should carry the name of former Superintendent Wilson). Two, an IGE film, "Many Roads," was viewed and discussed.

The seventh and final committee meeting was held on December 9, 1971. The purpose of the meeting was to respond to the report of the committee's work as prepared by Danner. All committee members "agreed that the description of the school" matched their feelings and that "there was no disagreement" with the summary statements in the report. During the discussion, it was noted that many people were currently moving into the area and would be unfamiliar with IGE. Committee members believed it would take work to acquaint parents with the IGE program at the school on Site 9. Additionally, concerns were expressed about staff and principal selection procedures. There was no response to this concern documented in the minutes of that meeting.

With the submission of the principal's report and subsequent approval by the superintendent and board, the construction of York Elementary School began. In January 1974, Jennifer Robinson was named principal of the school. Her selection in January was consistent with the district practice of naming the principal one semester prior to the opening of a new school, thus affording the individual time to prepare the school for its opening. One of Robinson's major tasks was the selection of unit leaders and staff. The selection process, according to Robinson, provided little flexibility since the process was clearly delineated in the master contract. The staff selection process as outlined in the principal's report of 1971 and described by Robinson began with Foster (the newly appointed principal of Mercury) and Robinson jointly drafting a statement for publication in the "Superintendent's Bulletin" encouraging teachers to transfer to the two schools. A brief description of the school's design and program were included. As described above, a meeting at the central office was scheduled for teachers so that they could learn more about the IGE program. Robert Sparks, a staff member of the Wisconsin Department of Public Instruction and the Wisconsin IGE Coordinator, was present at the meeting to assist in the program presentations. From the pool of teachers requesting transfers, interviews were held and the recommendations of each candidate were reviewed. The process concluded with Robinson making the final selection. Who ultimately was selected and why? According to the teachers interviewed, the principal had to select from teachers that were excessed from other buildings. Beyond that, when all other criteria were met, seniority was the critical factor upon which the final staff was determined.

Only one teacher indicated any knowledge of IGE prior to filing a transfer request. All others interviewed submitted transfers to

York not because of IGE but rather because they had been excessed from their current assignments and needed to search out new ones. Three unit leaders were selected from transfer applications, category G in the teacher selection process as outlined in the master contract.

With the selection of the staff, complete inservice could begin. In August 1974, the two-week inservice program was held for staff members of Mercury and York schools.

Mary Lee was then the district's IGE facilitator and it was her responsibility to provide the inservice program for all staff. The 40 hours of inservice was required and outlined in the master contract negotiated between the LTA and the Lakeside Board of Education. All teachers were paid to attend. While attendance was not required, it was, according to Lee, strongly recommended. With the exception of the special teachers, the teaching staff from both Mercury and York attended.

Two underlying conditions were identified by Lee as significant in determining the format for the workshop. Both school staffs were not only new to IGE but to each other as well. Thus, according to Lee, it was important to have the socialization process an important component of the inservice. Second, the total staff from each school was present. This, Lee reported, permitted each staff to put IGE into practice in a "real world sense."

During the workshop, training materials developed by /I/D/E/A/ of the Kettering Foundation and the Wisconsin R & D Center were used. Sparks also assisted in the inservice although the primary trainer was Lee.

In September 1974, York School opened its doors. Inside was a new principal, new staff, and a new school program, all designed to serve a new school community.

Chronology of Adoption Events (York School)

12/1970 - 1/1971	--Parent meetings for Ridge School and Adams School to discuss redistricting their attendance areas.
1/22/1971	--Redistricting goes into effect. *350 students from Ridge transferred to Adams. *575 students from Adams to Kennedy (75% of the Adams student body). *parents of students transferred from Adams included: --the entire executive committee of the Adams PTA. --90 percent of Adams parents advisory committee. --all Boy and Girl Scout leaders.
5/1971	--Site 9 (York School) activated. Dave Danner, principal of Adams asked to serve as chairperson of Site 9 Committee.
6/10/1971	--First meeting of Site 9 Committee. This was a joint meeting with the Cleveland School Site Committee. Danner also chairperson of that committee. Chambers presents IGE to the committee members.
9/9/1971	--Second Site 9 Committee meeting. IGE is recommended by the committee as the learning program for Site 9.
9/16-30/1971	--Third and Fourth Site 9 Committee meetings.
10/12/1971	--Committee members visit Eisenhower School, an open design, IGE school.
10/14/1971	--Committee members visit Monroe Junior High School.
10/14/1971	--Fifth Site 9 Committee meeting. Eisenhower School visit reaffirms committee's belief that IGE is the program to recommend.
	--Committee members view and discuss the IGE film "One At A Time Together."
11/3/1971	--Committee members visit Homer School, a modified, open plan, IGE school.
11/11/1971	--Sixth Site 9 Committee meeting. IGE is discussed by committee members. Committee recommends school be named after John D. Wilson, a former Lakeside superintendent. (Subsequent board action named the school after the Town of York, the area in which the school is located.)

12/9/1971 --Seventh and final Site 9 Committee meeting. Committee supports Danner's draft of the final report.

1/1974 --Jennifer Robinson appointed Principal of York School.

8/1974 --Staff selection completed.

8/1974 --Staff attends two-week IGE workshop with Mercury School.

8/1974 --York School, an IGE school, opens its doors for the first time.

Star School

Of all the research sites, the events leading to the adoption of IGE at Star School are the least documented and understood. While key events have been identified, rationales for the decisions have been extremely difficult to obtain. The data, as made available to the researchers, appear to present a rather obvious "top-down" decision to make Star an IGE school. Yet, the hesitancy of those involved, their voiced lack of information, and general aloofness about those events make our understanding of the adoption process at Star School incomplete. With that as a backdrop, the following represents our understanding of what led to the adoption of IGE at Star School.

Star School is located in the central area of Lakeside, a few blocks from the city's industrial area. The approach to the school is past a series of large, ominous looking storage buildings. Occasionally, a smaller business can be seen. In general, however, the school looms ahead like a "star in the night" after a maze of industrial buildings, parking lots, and factories. The school appears to be well-kept, and one can imagine a warm, comfortable atmosphere inside. The residential area around the school, however, presents another picture. The blocks are dotted with houses of varying sizes, some reminiscent of the city's more prosperous years. Some are still well-kept, others in need of major repair. Dotted throughout the area are houses that are no longer occupied, their windows boarded shut. The general impression is that this area may at one time have been a relatively affluent part of the city. However, now it is what many would describe as a declining inner-city residential area.

In 1976 the court desegregation order was imposed on the school district. At that time Star School was 100% minority. The principal was to discuss what he and his staff thought they would like to do to improve the educational program at Star. Several suggestions, none of which included IGE, were made known to the central administration. Also in this period of time, the central administration was attempting to develop ways to enhance the school's ability to meet the needs of students and more generally improve their achievement levels. Lakeside had several IGE schools in the inner city that were perceived as successful and some in suburban areas of the district which were attended by majority students.

The central administration reasoned that if they paired Star School, a school attended by 100% minority students, with a school in a majority population area that also had a good program, majority parents would send their children to Star School. Such a pairing was made. Arthur School, the school to which Star was paired, was implementing IGE. This plan to make Star an IGE school resulted from the deliberations of a "management team" in the office of the assistant superintendent. The principal of Star and his staff were not consulted during those deliberations. They were, however, informed of the results by being told their school would be implementing IGE the following school year, 1977-78.

The principal, prior to being informed of the decision to make Star an IGE school, had become familiar with IGE from several IGE principals in the district as well as from several of his colleagues outside the district who were teaching in IGE schools. He perceived some advantages in the program, particularly in the multiunit structure. First, the multiunit structure, he felt, would provide a means by which teachers could work cooperatively to meet the needs of students. He also believed that the open structure arrangements would enhance the administration of the school.

Prior to the use of IGE in September 1977, the principal attended, at the request of central administration, an IGE workshop. This was followed by a 40-hour inservice for teachers the week prior to the opening of school. The 40-hour inservice was arranged through provisions of the contract negotiated between the LTA and the Lakeside Board of Education. The workshop was conducted by Mary Lee, the district IGE coordinator, with assistance from an R & D Center staff member. Over 125 teachers and administrators from kindergarten through grade eight participated in the workshop. Because of the size and the limited number of workshop staff, many of the activities that characterized the workshop for the Mercury and York School staffs were not possible.

The school was given an additional $12,000 from local funds to purchase materials and supplies during their first year of IGE. It was not possible to use desegregation funds since the school population did not contribute to meeting the mandates of the court order.

The preceding description of the adoption of IGE at Star School represents what has been documented. While, on the surface, it may appear complete, there are many loose ends and a multitude of questions remained unanswered. It is anticipated that as the research staff continues to work with the Star School staff additional data will become available, providing a more complete understanding of the events leading to the adoption of IGE at Star School. In summary, what we can document about the process is the following:

1. The Star School principal and staff were asked to suggest ways to improve the program at Star. Their suggestions did not include IGE.

2. Court-ordered desegregation occurred in 1976.

3. Star School was paired with Arthur School in hopes of attracting majority children to Star.

4. The decision to implement IGE at Star School was made by a management team in the office of the assistant superintendent.

5. Neither the principal nor the staff of Star School were consulted during the deliberations which led up to the decision to implement IGE at Star School.

6. The principal and staff of Star School received IGE inservice prior to its implementation in September 1977.

Chronology of Adoption Events (Star School)

1976	--Star staff discusses ways to improve its instructional program. Sends suggestions to central administration.
	--Star paired with Arthur School.
	--Court ordered desegregation.
	--Management team in the Office of the Assistant Superintendent decides to have Star School implement IGE.
1/1977	--Principal of Star School attends administrative workshop on IGE.
8/1977	--Teachers attend one-week IGE inservice.
9/1977	--Star School begins implementing IGE.

Lewis School

Out of adversity, it is said, comes a new order of things. With the inability of the school district to successfully pass three bond referenda following the tragic burning of the original Lewis School, adversity and disaster could be used to characterize the circumstances leading to the construction of a new Lewis Elementary School and its implementation of IGE. The beginning of the history, however, had its origin many years before the fire.

The area surrounding the city of Lewiston illustrates the truth of the slogan, "America's Dairyland," which graces the license plate of every state vehicle. Lewiston, a city of approximately 10,000, is nestled in gently rolling fertile farmland. Single family homes account for the majority of the city's housing. Several public parks and playgrounds dot the city. Scattered in a few of the outlying regions of the city are some multiple-family dwellings. The city also contains a large housing complex for the elderly. The downtown is built around a city square. Many of the small businesses and gift shops in the square are built to resemble the architecture of the European homeland of many of the city's inhabitants.

The major economic base for Lewiston and its surrounding area is dairy farming and agriculture. Dairy products, particularly cheese have enabled Lewiston to become known statewide. A major national dairy products firm is located here. Small gift shops and stores have taken hold as they cater to not only the residents of Lewiston but also to the many visitors that come to Lewiston to buy the dairy products for which the city has become famous. Other small businesses add diversity to the economic base. The production of a variety of foods, beverages, heating equipment, and electronic and printing supplies provide employment for many city residents.

Taken together, Lewiston is a quaint farm-oriented community. Its setting and architecture are reminiscent of the homeland of its founders. Despite its apparently serene atmosphere, Lewiston is a city struggling with many of the same problems as other cities as it copes with a fluctuating economy, rising taxes, and schools.

The Lewiston School district accommodates 2,907 students who are served by over 150 teachers and administrators in four elementary schools, a junior high school, and one senior high school. There are also two schools, a vocational school and a school for the handicapped, serving a specialized student population.

In 1970 the district sought and employed a new curriculum coordinator, Don Clift. Clift's major responsibility was to develop an evaluation plan for both teachers and administrators. In his new role, Clift was convinced that change was needed in the district schools and perceived himself as a change agent. His goal was to "stir things up." He was convinced that once the dust settled, the various school programs would be better for children.

Clift began by developing a proposal that would create a school with a program for mainstreaming students with exceptional educational needs into the regular classrooms. One could ask at this point what prompted Clift to take this direction. According to Clift, "It might have been the need for something different in Lewiston. I was impressed by my visits to Riverton schools: the mainstreaming of special education children, a better feeling for school by both children and teachers, and the decision-making process."

The instructional program and administrative organization of the school he visualized resembled IGE. Although not fully conversant with IGE, Clift had developed a basic understanding of IGE through a colleague in a neighboring school district. The Riverton schools visited by Clift were also using IGE. The proposed K-2 IGE school where children with exceptional educational needs would be mainstreamed into the regular classroom was presented and received the tentative support of the school board and some staff but was subsequently dropped due to adverse community reaction. The negative reaction from the community was attributed to the fact that successful implementation of the proposed plan would require some redistricting of current school attendance areas and some student bussing. With the defeat of this proposed school, the means through which Clift saw the possibility of change in the district went hopelessly down the drain. However, Clift maintained considerable support in the district and continued to improve the schools by working to develop IMCs in the district schools and urging teachers to individualize instruction. Clift exerted this influence until the end of the 1972-73 school year, when, for a variety of reasons, he accepted a new position and left Lewiston.

It was during the last half of the 1972-73 school year that IGE gained momentum. During the last few months of his tenure, Clift arranged for several consultants to present inservice workshops for the district staff. One consultant from California presented a workshop on the individualization of instruction. This was followed a short time later with a workshop on IGE presented by the State IGE Coordinator, Robert Sparks. One individual attending these workshops was Clarence Dubbs.

Prior to the first workshop, Dubbs was appointed principal of Cedar School. His appointment was based upon the recommendation of Clift, who had the responsibility for hiring new district personnel. Although a new administrator, Dubbs, was a hometown product and had taught in the district for several years. In January 1973 Dubbs was appointed principal of the original Lewis Elementary School.

In September 1973, Clift was gone, and Dubbs was principal of Lewis School. The month was hot, particularly the day after

Labor Day. The building was extremely hot but nobody thought anything about it because of the warm weather and a broken boiler fan. That night at 2 a.m. Dubbs woke up to the wailing of sirens. It seemed to come from the direction of Lewis School. The phone rang. Dubbs said he knew what was happening, so when the voice on the other end said his school was burning, his suspicions were confirmed. The fire completely gutted the school. Only the frame of the building was left. A minimal amount of equipment and supplies was salvaged. Lewis School students and teachers were placed in several schools in the district as well as in several other buildings in order to continue their "schooling."

In 1974 two district teachers approached Dubbs and urged him to join them in taking a course on IGE at the University of Wisconsin. From this course the establishment of IGE in Lewiston began. One of the course requirements was to develop a plan for implementing IGE in a local school. Dubbs and the two teachers attending the class with him developed an IGE implementation plan for Lewiston. Refinement of the plan was possible with the assistance of an administrative intern who assumed the position vacated by Clift.

Three attempts at passing a bond referendum for a new school failed. New efforts in 1974 caused a burst of optimism about the possible passage of the upcoming fourth referendum. The 1974-75 school year began with the appointment of a new curriculum coordinator, James Tull. Tull, coming to Lewiston as a recent recipient of a doctoral degree, had been previously employed as a high school principal in a district noted for its IGE elementary school. Tull, along with Dubbs and several other staff members, began to develop plans for a new Lewis School. While plans were being made for a new school based on the open-classroom concept, the board-appointed architect was also busily engaged in his own planning.

In mid-1975, the board received the architect's first set of plans. The architect had designed a school that fit the conventional "egg-crate" school structure. This design was flatly rejected by Dubbs and his group. Their reason for rejecting the design was centered on the belief that the district needed something different, something that permitted students to learn in ways impossible in traditional designs. In response to the obvious differences between what the Dubbs group and the architect envisioned as the new school, the Board of Education appointed a Building Design Committee. Dubbs was a member of that committee.

During this time the board was also planning for its fourth referendum. Perhaps learning from the first three failures, the board decided to enlist the services of a consultant to assist in conducting the referendum campaign. Extensive groundwork was laid through the use of a community analysis conducted by the consultant and the public relations work of the Building Design Committee. Much of the committee's PR work focused on selling the architectural design. In the spring of 1976, the referendum passed. Plans could now be made for the construction of the new school and its instructional program.

After the passage of the referendum, IGE was discussed as the school's instructional program. All personnel, however, were not convinced. In the summer of 1976, Dubbs, Tull, the superintendent, and one other district principal attended a one-week IGE workshop sponsored by School Consultants Group (SCG), a well-known non-profit educational consulting organization. As a result of the workshop, further exploration of IGE was approved by the superintendent. In November 1976, Dubbs was appointed principal of the new Lewis Elementary School. At the same meeting, the Board of Education adopted a set of priorities that would be used to guide the development of the instructional program at Lewis Elementary School. These priorities, developed by district teachers and administrators, were as follows:

1. To provide children with a physical setting which will reflect the best available educational thinking, techniques, program, and procedures as evaluated by the planners.

2. To allow maximum flexibility of space and program for the life of the building.

3. To allow for varying kinds of planning and organization both for teachers and students.

4. To provide for teaching children within their wide range of individual needs: from a need for full-structured environment to that of an open environment; a need for great control to a need for independence and freedom; from a need for a one-to-one teaching situation to a need for a large-group teaching situation; from a need for being motivated by others to a need for self-motivation; from a need for an education suited to the handicapped to a need for an education suited to the slow, the average, the fast, and the gifted.

5. To allow for maximum efficiency in personnel, space, program, materials, cost, and parent involvement.

The stage was now set. The referendum passed. The priorities outlined by the board were tailor-made for IGE. The superintendent and curriculum coordinator supported IGE. Finally, Clarence Dubbs, the most enthusiastic promoter of IGE, was named principal of the new school. In December 1976, upon recommendation of Dubbs, the Board of Education officially adopted IGE as the instructional program for Lewis Elementary School. At the same meeting, the board also approved a request which would permit Dubbs to attend graduate school as a full-time student. He was also a half-time employee of the district. His main task was to assume responsibility for overseeing the construction of the new school and planning for its opening.

The arduous task of creating a school now began. In addition to keeping in touch with the progress of the school's construction, Dubbs had to staff the school. After intensive interviews, he began by hiring the unit leaders in December 1976. By February 1977 Dubbs and the unit leaders completed teacher selection. Dubbs also contacted the SCG to develop an inservice plan to facilitate the implementation of IGE. In February 1977, the opening of the school was set for January 1978, the SCG inservice contract developed by SCG staff and Dubbs was approved, and the first inservice workshop for the Lewis School staff was planned for March 1977.

Because all of the newly identified Lewis School staff were scattered throughout several buildings, the March inservice was the first time they were together. The inservice was designed to allow staff members to become acquainted with each other. A brief overview of IGE was also presented by SCG consultants. Dubbs stressed the importance of using a private consultant during the inservice process. The role played by the SCG consultant, according to Dubbs, was that of a problem solver and an external change agent.

Between the first inservice and the opening of the new school, 13 additional inservice sessions were conducted by Dubbs and SCG consultants. The first two of these were conducted in March 1977 by Dubbs. The inservices focused on the design of the multiunit school organization and the role and responsibilities of the principal, unit leader, and teacher. Materials for the workshops, as well as for subsequent inservices conducted by Dubbs, were provided by SCG.

In April SCG conducted an evening workshop designed to pull together the activities of the two previous workshops. Simulations were used to enable the staff members to use what they had learned in the prior inservices.

During April and May three additional inservices were conducted by Dubbs. These workshops focused on the instructional component of IGE. During these final workshops the staff made the decision to apply the IPM in mathematics. The final inservice of the school year was conducted by SCG. It also emphasized the instructional component of IGE. The remaining components of IGE were also presented during this session.

An intensive, five-day inservice was held for all staff members during August 1977. This workshop attempted to help the staff translate IGE theory into practice. The concept of shared decision making was put into practice as the staff developed the school philosophy and involved parents in the development of school objectives. The workshop terminated at the point where the staff was preparing the specifics of the instructional program, Step V of the IPM.

In October 1977 SCG again conducted a workshop to bring together the staff's IPM Step V work. Two final Step V workshops were conducted in October by Dubbs.

In November SCG presented an inservice on a specific teacher-student guidance program. The last inservice was held in December 1977 and was conducted by Dubbs. A final provision contained in the SCG inservice contract provided the staff with three SCG consultant days. These days and the topics were at the discretion of the school staff.

During the remaining months of the 1976-77 school year and on into the next, staff members, through a variety of committees, also worked closely with the contractors as they completed construction of the school. As it was described by one staff member, "Nothing was put into the school, including the color of the toilet paper, without staff approval. It is our school." Because of a variety of delays, the school did not open until April 1978. The move into the school was smooth. Teachers, students, and materials were successfully moved by unit levels from buildings throughout the district into the new Lewis Elementary School.

Between April and the end of the 1977-78 school year, the atmosphere in the school was described as exhilarating but overlaid with an aura of caution. It was a time for orientation. Staff and students were not only getting to know each other, but everyone also needed to become accustomed to the openness of the new school, the district's first non-conventionally constructed school.

During this time IGE was not in full swing. Time was short and the IIC determined that a period of orientation was necessary before attempting IGE; that would come next year. Thus, Lewis School, a new IGE school, was ready to begin its first full year of IGE.

Chronology of Adoption Events (Lewis School)

1970	--Don Clift hired as District Curriculum Coordinator.
1972-1973	--Clarence Dubbs hired as Principal of Cedar School.
	--Inservice on individualization.
	--IGE inservice conducted by Robert Sparks, State IGE Coordinator.
	--Clarence Dubbs appointed Principal of Lewis School.
	--Don Clift leaves Lewiston.
9/1973	--Lewis School is destroyed by fire.
1974	--Clarence Dubbs, on urging of two teachers, attended IGE course at UW-Chevron. IGE implementation plan developed for Lewiston.
	--James Tull hired as District Curriculum Coordinator.
1975-1976	--Three bond referenda for new school construction fail.
	--Staff group (Dubbs, Tull, and several teachers) develop open-concept school design.
	--School architect presented conventional "egg-crate" self-contained school design to Board of Education. Turned down.
	--Board of Education established the Building Design Committee.
1976	--Board referendum for a new school passed.
Summer 1976	--Tull, Dubbs, and the superintendent attend a one-week IGE workshop conducted by School Consulting Group (SCG).

11/1976	--Board of Education set district priorities. --Clarence Dubbs appointed principal of the new Lewis School. --Upon the recommendation of Dubbs, the Board of Education approved IGE as the instructional program for Lewis School.
12/1976	--Dubbs selected unit leaders.
1977	--Dubbs and unit leaders selected teaching staff for Lewis School. --Inservice contract between Dubbs and SCG approved by Board of Education.
3/1977 - 12/1977	--Fourteen inservice workshops held for Lewis School staff.
4/1978	--Staff and students moved into Lewis School.
9/1978	--IGE implementation began.

Arrow School

The Midtown School District is located in a pastoral setting, scenic rolling hills dotted with farms and several small communities. Agriculture is the area's economic base. In the communities within the school district local employment is also provided in the many small stores and shops. The area's major industry employs approximately 50 people.

The current Midtown School District resulted from past statewide consolidation efforts to reduce the number of school districts in the state and from local community desires to provide a better educational program for children. It is composed of the city of Midtown and the towns of Milford, Floyd, and Eaton. Each of the four communities has an elementary school. In Midtown, Arrow School has a K-6 program. The school serving the town of Milford also has a K-6 program. The schools in Floyd and Eaton are K-4 with the children in grades 5 and 6 bussed to Arrow School. All four elementary schools feed into one junior-senior high school complex located in Midtown adjacent to Arrow School.

The three outlying schools, particularly those in Floyd and Eaton, are sources of continual controversy. Each of the two schools has served Floyd and Eaton prior to the formation of the Midtown School District, and as a result there still lingers a sense of home-town pride for each school. However, district administrators are concerned about the expense required to maintain the "neighborhood" schools. One school has 30 children and 2 teachers, the other has 1 teacher and 20 children. The closing of these schools are issues at each annual meeting of the school district.

There are four administrators in the Midtown School District: superintendent of schools, assistant superintendent for curriculum and instruction, a high school principal, and an elementary school principal. The superintendent, assistant superintendent, and support personnel are housed in a central location. The superintendent serves in the role of chief school administrator. The assistant superintendent is responsible for the development of curriculum and the supervision of instruction at both the elementary and secondary levels. The high school principal's responsibility is the administration of the junior-senior high school complex. The elementary principal, responsible for all four elementary schools, has an office in Arrow School and spends a proportionate amount of time at the other three schools.

The adoption of IGE at Arrow School can be attributed to two completely independent events, one centering around personnel within the district, the other on one individual, Beth Simmons, a principal in a nearby community.

In 1969 several teachers from Milford were attending a course on the individualization of instruction at the University of Wisconsin-Tall Pines. Included in the courses was an introduction to IGE. This particular campus, in addition to incorporating IGE into selected courses, was also involved with assisting several area schools to implement IGE. The use of many of the techniques and ideas discussed in the course, such as the use of contracts and unipacs, was incorporated into the classrooms when the teachers returned the following September to Milford.

In 1974 the staff at Milford began the use of the Wisconsin Design for Reading Skill Development (WDRSD). While the WDRSD is not IGE, it is a curricular product developed by the R & D Center and is compatible with IGE. Shortly after Milford began its use of WDRSD, it became affiliated with a league of IGE schools. The league of schools was coordinated by the state university. While Milford was not itself an IGE school, it was now working with other schools that were. By virtue of their use of WDRSD, some staff members did consider themselves to be implementing IGE.

During this period of time in another school district approximately 50 miles from Midtown, Beth Simmons was serving as principal of an elementary school. In addition, Simmons was working towards her master's degree in IGE at the University of Wisconsin-Trivers City. Prior to joining the staff at UW-Trivers City, her master's advisor in the program was a member of the R & D Center staff.

In 1975 the Midtown School District sought and hired Beth Simmons as a new assistant superintendent for curriuclum and instruction. She was hired specifically "to get things going." With her background and academic work in IGE, it seemed a natural for the Midtown District and Arrow School in particular to adopt IGE. Staff members and Simmons both agreed that Simmons made the decision to adopt IGE at Arrow.

Several activities were planned by Simmons to prepare the staff for IGE. During the 1975-76 school year, several Arrow staff members were sent to a unit leader course in a neighboring community. This was followed by an on-site course taught during the fall of 1976. The course, sponsored by the university and taught by Simmons' former advisor, was designed to facilitate the implementation of IGE at Arrow.

The adoption of IGE, beginning in September 1976, was completed in two phases. The first phase consisted of the lower unit beginning to use WDRSD in the fall of 1976. The second phase began in the spring of 1977 with the middle and upper units extending the use of WDRSD.

Several advantages supporting the adoption of IGE were cited by district administrators. The most frequently cited advantage was that IGE enabled school people to meet the individual needs of children. "Take the kids where they are now and go from there" and "looking at the kids as individuals" are typical comments by the administrators. Teachers cited the grouping arrangement and the reading program (WDRSD) as the advantages of adopting IGE.

Perceived disadvantages were few; however, those mentioned by the staff in interviews include necessary extra work, personality conflicts,"kids getting lost in the shuffle,"and people getting too wrapped up in the IGE model.

Resistance to IGE was minimal. As described by one interviewee, "Those who were resistant either retired or resigned." Those that remained and may not have been supportive of IGE, as described by another, exhibited a "passive resistance," that is, they didn't voice their objections, but went along with things as they were. Finally, for some teachers at Arrow, what IGE represented was what they were, in a limited sense, already doing or trying to do.

Chronology of Adoption Events (Arrow School)

1969	--Midtown School District teachers attended course on individualization at UW-Tall Pines.
1974	--WDRSD implemented at Milford. --Milford School joined league of IGE schools working with UW-Trivers City.
1975	--Beth Simmons hired as Assistant Superintendent for Curriculum and Instruction. --Beth Simmons made decision to adopt IGE at Arrow School.
Spring 1975	--Several Arrow School staff members attended unit leader course in neighboring district.
Fall 1976	--IGE course taught at Arrow School by staff from UW-Trivers City. --Lower unit at Arrow School implemented WDRSD.
Spring 1977	--Middle and upper units implemented WDRSD.

Meadow School

In 1969 Meadow School was one of several outlying elementary schools in a small southern Wisconsin school district. By today's standards, it was a relatively small elementary school, approximately 125 students. The district's K-12 organization accommodated approximately 2,000 students. The hub of the educational system was located in the district's largest community where an elementary school and the junior and senior high school formed one large educational complex. The several outlying elementary schools were located in the rural areas of the school district.

In 1968 the Board of Education, for a variety of reasons, made the decision to close two of the smaller outlying elementary schools. The approximately 100 students that were attending the two schools were to be transferred to Meadow Elementary School. In order to accommodate the incoming students at Meadow, an addition, incorporating the pod design, was built. Students were to be bussed to their new location at Meadow. Since the district encompassed nearly 100 square miles, bussing of students, particularly in the outlying rural areas, was not uncommon.

During the time that the district was involved in working with the contractors to complete the addition to Meadow Elementary School and making plans to transport the students that were displaced as a result of the two elementary school closings, the district superintendent, Ralph Barrett, and the principal of three outlying elementary schools, Brent Chase, were enrolled in a course at

University of Wisconsin-Chevron. The course provided an introduction to IGE. These two events provided the backdrop for the adoption of IGE at Meadow Elementary School.

The building project, according to Barrett, stimulated the consideration of an educational alternative at Meadow. Chase, then principal of Meadow Elementary School, with Barrett's approval decided that IGE would be implemented by those teachers housed in the new addition at Meadow Elementary School. Barrett supported the decision because he saw IGE as a mechanism by which teachers could better individualize instruction and provide learning related to student needs rather than to a prescribed norm. IGE, according to Barrett, also provided flexibility within its organizational structure. Chase, however, reported that a lack of convincing data to support IGE claims and a basic lag in teacher education were two disadvantages to providing IGE as an alternative at Meadow Elementary School.

Involvement in the decision to adopt IGE was limited to Chase and Barrett. Teachers and parents were not involved in any of the events prior to the decision. As described by one observer on staff at Meadow during the time the decision was announced, "Teachers were not consulted--we didn't volunteer (to teach at the IGE school), we were drafted. . .whoever happened to be here. I think the word is drafted--I mean, this is it, you're here and you're part of the program whether you like it or you don't like it. . .we were told, you do it this way and that's it. . ." No background information was provided prior to the actual in-class implementation of IGE, nor were teachers consulted regarding such procedures as teaming.

Between the announcement that the teachers in the new addition would implement IGE and the time of the arrival of the students from the two elementary schools being closed, Chase held several meetings to introduce IGE to the staff. The meetings were reported to be largely frustrating since Chase didn't seem to listen to or care what teachers thought. One Friday, in the spring of 1969, the two outlying schools were closed. The following Monday, as described by one teacher, "when it was all mud and wet," the new students and teachers arrived at Meadow School, only to find all the student materials, books, etc., "dumped in a pile in the middle of the floor." Such was the beginning of IGE at Meadow Elementary School.

Chronology of Adoption Events (Meadow School)

1969	--The district superintendent and the principal of Meadow School enrolled in an IGE course at the University of Wisconsin- Chevron.
Spring 1969	--Addition to Meadow School completed. --Two outlying elementary schools closed. Approximately 100 students to be transferred to Meadow School. --Meadow School designated IGE by its principal.
Late Spring 1969	--Principal of Meadow School initiated IGE inservice for staff members. --IGE implemented in one unit in the school's new addition.

Sawyer School

Trivers City is a small but growing city of approximately 50,000 residents. It is rapidly becoming a major center for retail trade and industry, education, and health and professional services. Within the city there are several major industrial concerns that employ over 3,500 local residents in the production of paper and machine parts. In addition, there are numerous stores, restaurants, hotels, and shopping centers providing employment. Governmental agencies, a University of Wisconsin campus, and three hospital facilities also employ many local residents.

The city itself provides numerous recreational and cultural activities for its residents. In the area there are over 50 parks and playgrounds, 30 tennis courts, 7 golf courses, 10 beaches, and 4 movie theatres. Special attractions and cultural events are actively supported by the community. Numerous other recreational activities and facilities are available for those persons wishing to take advantage of the parks and waterways.

Trivers City School District has an approximate student enrollment of 10,000. There are 20 elementary schools, 3 junior high schools, and 2 senior high schools. There are also 11 private or parochial schools in the area enrolling over 5,000 students.

The Trivers City area is increasing in population. A concern of both the administrators and school board is the adequacy of the present educational facilities. Building additions to both high schools and several elementary schools and the construction of a new junior high school were recently placed on a referendum for voter approval.

Selection of sites for school additions became an issue in the community. For the most part, the residents around each potential school site had their set of reasons why an addition should not be put on their neighborhood school. Most reasons revolved around the idea of maintaining a small number of students in a school. Several other considerations entered into the site selection: children crossing a major highway, constructing the addition on a school in an over-populated area, and the maintenance of the neighborhood school concept.

Sawyer School is a one-story building built in the 1950's. An addition to the building in the late 60's added enough classroom space to house two classes at each level from kindergarten through sixth grade. The interior of Sawyer School can best be described as a large, solid rectangle. Classrooms are located on the outer walls, along with a multipurpose room. The school office, the IMC, and specialist offices are located in the center of the building.

Prior to the adoption of IGE at Sawyer School, it was described as a traditional, age-graded, self-contained classroom school. Teaching was highly structured and was organized around textbooks. Each teacher was responsible for teaching all the subjects, including art, music, and physical education. The school also had only one teacher per grade level, kindergarten through sixth. The adoption of IGE occurred when the 1969 school addition was completed.

During the late 1960's, IGE in the Trivers City area was growing. Through the efforts of the State Department of Public Instruction, and the University of Wisconsin-Trivers City, several schools were established as model IGE programs. In an effort to increase the number of IGE schools, several IGE awareness conferences, conducted by UW-Trivers City staff, were held in Trivers City. An invitation to implement IGE was offered at each session with the guarantee that UW-Trivers City staff would provide necessary technical assistance. Several Trivers City School District staff members attended these sessions and were aware of the assistance available through UW-Trivers City.

In 1969, Robert Sparks, the state IGE coordinator, initiated a meeting with Glenn Black, the superintendent of Trivers City School District. The purpose of the meeting was to solicit the district's participation in statewide efforts to implement IGE. Although no commitment was made at that point, neither was Sparks's invitation turned down. Three district administrators: Herbert Hart, assistant Superintendent; Gloria Schubert, supervisor of curriculum and instruction; and Betty Keen, elementary supervisor, attended a follow-up meeting to gain additional information about IGE. As reported, it was on the return trip to Trivers City that the decision was made to implement IGE in several district schools.

Following their return to Trivers City, two criteria were established to select the schools to implement IGE: socioeconomic balance and reading scores. Sawyer School was selected because it represented the "middle income" socioeconomic level found in the community. A second school was chosen because it represented the higher socioeconomic level. A third school, representing the lower-socioeconomic level and low-standardized reading scores, was also selected. Each building principal was contacted and asked to participate. Black, Hart, Schubert, and Keen were concerned about teacher resistance but they relied on the principals to cope with the resistance if it was a problem. Paul Ulrich, principal of Sawyer School, was contacted and subsequently agreed to participate.

Ulrich, in the spring of 1969, informed the staff of his decision to have Sawyer School participate in the district's implementation of IGE. He also informed the staff that those teachers not desiring to participate could transfer to another district school. The teachers reported that this was not a realisitic alternative. New staff that were to be brought into the school because of the anticipated increase in student enrollment were "handpicked" for their desire to be in an IGE school. The staff, at the time the decision to become an IGE school was announced, was not extremely upset. The majority of the staff members were interested in IGE because of the opportunity they saw for meeting the needs of the students through IGE. The disadvantage the staff saw centered around the apparent amount of time it would take to implement the innovation.

During the summer of 1969, Paul Ulrich was transferred to another district elementary school. His old position was filled by Hugh Bayer. With the decision already made about implementing IGE at Sawyer School, it was necessary to train Bayer before the opening of the next school year. Bayer participated in a 3-week inservice program conducted by the Wisconsin Department of Public Instruction.

The 1969 school year began with the addition complete, a larger student population and staff, and the start of IGE. The IGE effort at this time was confined to the upper unit. Hugh Bayer, in addition to being building principal, also served as unit leader. This unit focused its efforts on improving the WDRSD. The staff considered themselves to be implementing IGE even though they maintained a departmentalized organization within an age-graded framework.

The extension of IGE into the remaining grade levels was completed in the fall of 1970. As in the upper unit, the IGE efforts in the lower grades revolved around the implementation of the WDRSD.

During the 1969-70 school year, a League of IGE schools was created under the leadership of UW-Trivers City. Sawyer School was a charter member of that League. In addition, the staff of Sawyer visited Dewey School, a model IGE school in a neighboring district. Dewey School was part of a statewide model school program and a member of the League. Betty Keen and Herbert Hart were also with the staff during the visit to Dewey School.

From the beginning of discussion in 1969, the district supported the IGE efforts. Expenses to release teachers to attend IGE inservice and related activities were provided by the district. Although the cost of providing aides and WDRSD materials occurred as a result of implementing IGE, these expenditures were, by district reports, considered normal when compared to the expenses of the other district schools employing aides. The major financial impact resulted from an agreement between the board and Trivers City Education Association whereby unit leaders received an additional 9% increase in salary. A grant was also received from the DPI that allowed the staff to develop a model IMC.

Chronology of Adoption Events (Sawyer School)

1968	--Trivers City School District central office staff attended IGE awareness sessions conducted by staff of University of Wisconsin-Trivers City.
1969	--Robert Sparks, State IGE Coordinator, met with Superintendent Black. Sparks sought Trivers City participation in piloting IGE. Black consented.
	--Follow-up meeting held in Madison with R & D Center staff; Assistant Superintendent Herbert Hart; and two central office supervisors, Betty Keen and Gloria Schubert.
	--Hart, Keen, and Schubert selected three possible sites. Principals asked to participate. Final decision left to each principal.
Spring 1969	--Sawyer staff informed by Paul Ulrich, principal, that Sawyer would implement IGE the following school year. Teachers offered transfers to other schools.
	--Building addition completed. School enrollment doubled.
Summer 1969	--Hugh Bayer appointed principal of Sawyer School. He attended three-week IGE workshop.
Fall 1969	-- IGE began in intermediate (grades 4 to 6) unit. Paul Ulrich, principal, was also unit leader. WDRSD used.
Fall 1970	--IGE extended to the primary unit. WDRSD used.

Rise School

Tall Pines is a city with a population of approximately 50,000 residents. The area is characterized by a mixture of rolling wooded hills and flat fertile farmlands. Several rivers are found in the area as well as numerous small lakes. These add to the recreational appeal to the Tall Pines area.

There are numerous small businesses in addition to several major industrial plants in Tall Pines. The principal shopping and business district is located in the center of the city with an adjacent industrial park. Several shopping centers are also scattered throughout the various neighborhoods.

Tall Pines School District serves approximately 8,000 students. In addition, over 2,500 students attend private schools. The public school system offers an educational program from K-12 with special facilities for the physically handicapped.

The adoption of IGE at Rise School had a curious beginning. Back in the mid-1960's, two University of Wisconsin-Tall Pines professors, Tom Jackson and Lester Sell, were pondering the future of the School of Education. Beset by a variety of difficulties, the School of Education was making efforts to increase the involvement of students and area teachers in its activities. Both Jackson and Sell were convinced that the future of the School of Education lay in its ability to provide meaningful inservices for local teachers.

During this time the dean of the School of Education attended a luncheon meeting. At this meeting an IGE presentation was given. Seeing the inservice possibilities in IGE, he discussed them with Jackson and Sell.

During the following school year, 1970-71, the University of Wisconsin-Tall Pines' involvement in IGE grew. Robert Sparks, State IGE Coordinator, contacted the dean of the School of Education to solicit his support in providing assistance to Grover School, a school in a neighboring district that was implementing IGE. Jackson and Sell, upon request of the dean, agreed to help the school. During that school year they attended all of the IGE-related meetings at the school.

Other IGE activities became available. Jackson and Sell were invited to a unit leader training conference sponsored by the Wisconsin R & D Center. In addition, state funds were granted to the University of Wisconsin-Tall Pines and Singer University to jointly develop a unit leader course for the following academic year.

About the time that the University of Wisconsin-Tall Pines was increasing its involvement in IGE, restlessness among several teachers at Rise School was growing. Up until this point, Rise School functioned as a traditional, self-contained, age-graded school. Each teacher was responsible for classroom instruction within an assigned room. "There was no teaming whatsoever" was a description provided by one teacher when describing instruction and the collegial environment at that time. There were, however, several primary teachers concerned about the increasing number of non-readers. Their concern was sufficient to motivate them to search for ways of providing a more individualized reading program. Their search led to enrolling in Jackson and Sell's course on individualization being taught during the summer session of 1971 at the University of Wisconsin-Tall Pines. The teachers became very interested in the innovation and contacted their principal to explain it to him. At their urging, Peter Larkin, who had been appointed principal of Rise School several months prior to the summer course, attended several classes and talked with the other class members and instructors regarding the feasibility of implementing IGE.

The enthusiasm of the primary teachers generated during the summer course was sufficient to have them request permission of the principal to implement IGE in their grade levels that fall. It was decided that the first and second grade teachers would form an I & R Unit during the first year. It was further agreed that the remainder of the staff would decide if they would adopt IGE the following year. This plan was presented to the entire staff and agreed upon. IGE implementors from the R & D Center, Department of Public Instruction, and the University of Wisconsin-Tall Pines recommended that Rise School not adopt according to their original plan. However, the school did adopt the plan, indicating that they were cognizant of the pitfalls of a segmented implementation but were taking necessary safeguards.

Teachers indicated a variety of advantages to IGE. The primary teachers believed IGE would enable them to individualize instruction for children, especially in reading. They pointed to the fact that IGE is designed "to help reach those students that have unique learning needs." Other advantages focused on a concern for individual learning needs and use of a variety of teaching methodologies. Practical applications of DMP such as grouping patterns, curricular materials to teach specific skills, and the recognition of different learning styles were also appealing advantages.

Despite the obvious appeal of IGE, several disadvantages were identified. Some concern was expressed over the possiblity of actually translating the theory of IGE into practice. There was also a concern over the amount of movement that appeared to come with IGE. The amount of time that would be needed to meet and plan together was also seen as a disadvantage.

Concurrent with Rise's involvement in IGE the LEAP League of IGE Schools was formed as a result of an agreement between the University of Wisconsin-Tall Pines and several local schools. The LEAP League was formed to provide technical assistance to those schools implementing IGE.

The fall of 1971 was an exciting time, especially in the primary unit, at Rise Elementary School. The primary unit was implementing IGE for the first time. Involvement in IGE revolved around the pilot testing of the Wisconsin Design for Reading Skill Development (WDRSD). Initial start-up costs were minimal because Rise School agreed to pilot test specific WDRSD materials and received most of them without any charge. Any additional costs for materials and aides were absorbed by the Board of Education. Costs were not seen by the principal as more than what would normally be expended by a non-IGE school. During the first semester of the 1971-72 school year, the primary unit received technical and moral support, not only from the principal, but from staff members at the University of Wisconsin-Tall Pines, the Department of Public Instruction, and the LEAP League of IGE Schools. In addition, all teachers had the opportunity to visit other IGE schools. This was also the semester that five other Tall Pines elementary schools implemented IGE. In each of those cases, IGE was implemented schoolwide. The participation of Rise School and the five additional Tall Pines schools received Board of Education sanction when an agreement between the Department of Public Instruction and the Tall Pines School District was signed.

The spring of 1972 was important for the staff of Rise School. It was time to make a decision. Would Rise School extend IGE to the remaining grade levels or would IGE be confined to the primary unit? After discussing the experiences of the primary teachers and the advantages and disadvantages of IGE, a vote was taken. The vote was what the primary unit had hoped for. Yes, Rise School would, beginning with the 1972-73 school year, be an IGE school.

That summer, the summer of 1972, a majority of the remaining staff members of Rise School enrolled in a summer workshop course similar to the one attended by the primary teachers the previous summer. With the experiences of the primary staff, the visits to other IGE schools, the addition of a new math program, DMP, and the help from the University of Wisconsin-Tall Pines, the school began the 1972-73 school year implementing IGE schoolwide.

Chronology of Adoption Events (Rise School)

1970	--Tom Jackson and Lester Sell established an "Institute for Alternative Staffing Arrangements"; attended the R & D Center "Unit Leader Training" program at the R & D Center; worked with Singer University to develop a university course for unit leaders.
Spring 1971	--Peter Larkin hired as principal of Rise School.
Summer 1971	--Three Rise staff members took course from Jackson and Sell. Larkin attended several sessions.
	--The LEAP League of IGE schools established by the University of Wisconsin-Tall Pines. Several surrounding school districts participated.
Fall 1971	--Primary teachers formed an I & R unit and began IGE. Other staff members approved of their decision.
	--Teachers visisted IGE schools.
	--Teachers attended IGE workshop.
	--Five Tall Pines School District schools implemented IGE.
	--Board of Education signed an agreement with the Department of Public Instruction.
Spring 1972	--Staff voted to implement IGE schoolwide.
Summer 1972	--Several teachers completed IGE course.
Fall 1972	--Entire school implemented IGE. WDRSD and DMP used.

North School

The Chevron Public School District serves the students in one of the state's larger cities. North School, the oldest school in the district, is one of the more than 15 district elementary schools. Being the oldest district school, it has seen many additions. What was once a traditional, self-contained, classroom structure now has several classroom wings, a gymnasium, and a multipurpose room.

Prior to the implementation of IGE, the instructional program was organized around grade-level, self-contained classrooms. Over 600 children were assigned to one of 20 teachers for classroom instruction. The fifth and sixth grade teachers had developed an individualized math program and cross-grouped for math instruction. Other than this, instruction at North was confined to each of the individual self-contained classrooms. The staff was reported to be satisfied with their situation and not seeking anything new or different. As one administrator described it, "We'd just wind the clock up at the beginning of the year and let it wind down."

At the time of events that heralded the beginning of IGE at North School, IGE was not new to the Chevron School District. As far back as the mid-1960's, Chevron School District and the Wisconsin R & D Center had established a partnership in research that investigated the problems confronting elementary education. This partnership resulted in the establishment of several R & I Units (forerunners of the I & R Units). Subsequently, two of the original IGE schools were in the Chevron District.

Thus, in the spring of 1970, when Sid Malm, district program coordinator, held an IGE awareness meeting for district principals, IGE was not unknown. IGE was presented as an alternative to the existing elementary program. Todd Menzel, principal of North School, was in attendance. He and four other district principals expressed an interest in exploring IGE. That summer Menzel attended a one-week IGE principals' workshop sponsored by the Wisconsin R & D Center and the Wisconsin Department of Public Instruction. Each of the participants received a stipend and IGE materials useful for explaining IGE to others, teachers in particular.

During the first semester of the 1970-71 school year, Menzel built awareness of IGE among staff members. During staff meetings IGE was explained and its merits presented. In January 1971 Menzel identified several key teachers for IGE inservice. These teachers were released from classroom responsibilities to attend a three-day, principal-unit leader workshop sponsored by the R & D Center and the Department of Public Instruction. Upon their return they shared their workshop experiences with other staff members.

A decision had to be made. Would North choose to implement IGE? The advantages, as reported by staff members, were the idealism of IGE, the theory behind the organizational structure, and the philosophy of individualized instruction. The reported disadvantages were more pragmatic: too much time required, lack of resources, and the need for strong teacher commitment. If there was any resistance to IGE, it centered around the practice of multiage grouping of students. In February 1971 the North School staff made the commitment, by vote, to implement IGE.

During the remainder of the 1970-71 school year, the entire staff increased their understanding of IGE by participating in four inservice workshops. These workshops were conducted by staff members of both the R & D Center and the Department of Public Instruction. During this time parents were also informed about IGE and told what they and their children could expect when the school staff implemented IGE the following school year.

Throughout the time leading to the adoption of IGE at North School, the school district supported North's efforts. They provided released time for inservice, substitute teachers, and materials for IGE training and classroom instruction. In addition, released time and salary for unit leader were also ensured. Without much difficulty in September 1971, the beginning of a new school year, the staff of North School, now organized into four I & R Units, began with a new program, IGE.

Chronology of Adoption Events (North School)

1966-1967	--Four district schools involved in the establishment of I & R Units by the Wisconsin R & D Center.
1967-1968	--Several district schools became some of the nation's first IGE schools.
Spring 1970	--District supervisor invited elementary principals to become involved in IGE.
	--Principal of North School expressed interest in IGE.
Summer 1970	--Principal of North School attended a one-week IGE workshop sponsored by the R & D Center and the Department of Public Instruction.
Fall 1970	--Principal of North School discussed IGE with staff members.
1/1971	--Key teachers, subsequently appointed unit leaders, identified by principal and sent to a three-day IGE workshop.
	--Key teachers shared workshop experiences with staff.
2/1971	--Entire staff voted to implement IGE at North.
2-6/1971	--Staff participated in four inservice workshops.
9/1971	--North School began implementation of IGE with four I & R Units and 600 students.

Davis School

Avon is a city of approximately 5,000 residents. Its reputation as a "good place to live" may account for its steady increase in population. Avon is a residential community with several small industries. Most residents commute to employment in one of several larger nearby cities.

The Avon Public School District serves more than 2,000 students in grades K-12. Students are housed in four elementary schools, one junior high school, and one senior high school. With the exception of two small outlying elementary school districts, all are located in the city of Avon.

As described by administrators, prior to the adoption of IGE the educational program in the Avon schools was extremely stable: "Teachers were doing the same thing, thinking the same way as they had for the previous 10, 15, 20 years since they had been in the elementary program. Avon was no better and no worse than any small town in terms of education. It was a cigar box, egg-crate kind of approach." Inservice in the district was lacking, and there was little curricular coordination among the four elementary schools. Administrators reported a need to strengthen the elementary program and to pull its fragmented sections together. According to the superintendent, the district was ". . .ripe for some new innovation."

These conditions in 1967 provided the environment for events that ultimately led to the adoption of IGE at Davis Elementary School in 1971. The events began when the superintendent discussed his concerns about the lack of change in the district and the need for updating with two of the district's elementary principals. In the discussion non-gradedness was suggested as a possibility for the district. One of the principals had become familiar with the concept of non-gradedness through his master's work. With the superintendent's support, he organized an inservice on non-gradedness for the district staff during the 1967-68 school year. Follow-up visits by district teachers to non-graded schools were also arranged and conducted during that school year.

While non-gradedness was being explored in Avon, a neighborhood school district was receiving considerable publicity about its success with IGE. The superintendent of Avon learned about IGE through discussions with the district's superintendent. In addition, the superintendent was enrolled in an advanced degree program at the University of Wisconsin and became acquainted with several faculty members associated with the Wisconsin R & D Center. Because of his desire to change his school system, his knowledge of success with IGE in other districts, and his informal contacts, the superintendent pursued the ideal of bringing IGE to Avon.

While the administrative perception of the district prior to adoption suggests a stable district ripe for change, the teachers' recollections indicate no such readiness. Rather, teachers were not aware of any ongoing issues or concerns in the district prior to adoption. They indicated only that IGE was introduced by central administration, the assistant superintendent in particular.

Not only did the perceptions of the district prior to adoption differ between administrators and the teachers, but the perceived advantages of the innovation differed as well. For administrators the advantage of IGE was in the potential for better staff utilization. Specifically, the administrators expected that the organizational arrangement would allow for team teaching, make substitute teachers unnecessary, and encourage teachers to view children as individuals. Further, the administrators viewed the inservice arrangement associated with IGE as a way to counteract complacency among teachers.

While administrators stressed organizational and staff development advantages, the teachers emphasized benefits for children. For example, one teacher said IGE would "allow students to work at their own pace." Another said he had hoped that under IGE "each child would be met at his own level and that level would increase at a higher rate than students in traditional or departmentalized classrooms." Still another teacher believed IGE offered the advantage of "individualizing over the whole school rather than just one classroom."

Initial concerns about IGE were, for administrators, linked to demonstrating its value to the community, reporting progress to parents, illustrating IGE's superiority to other teaching methods, and allaying parental fears about the new program. Most of the teachers reported they had no reservations about IGE at the time. Some felt it was "new" and "exciting"; others reported adopting a "wait-and-see approach."

In early 1971 several open meetings were held by the school board at which the IGE philosophy was discussed. District parents and teachers were invited to attend these sessions. As one administrator recalls, "We did not go into it [IGE] necessarily from a central office decision kind of a thing. . .but rather we let people know what we were thinking about prior to our signing the contract."

Though administrators described the school board as basically conservative, they also characterized the board as interested in promoting education. The superintendent, assistant superintendent, and one principal reportedly sold IGE to the board by emphasizing the potential for better staff utilization.

Formal adoption of IGE was signaled by the signing of a contract by the Avon School Board, the Wisconsin R & D Center, and Department of Public Instruction in mid-1971. Prior to the contract signing, however, the district had been involved with certain aspects of IGE. An inservice on non-gradedness had been held in the district during the 1967-68 school year. Also, the Wisconsin Design for Reading Skill Development had been piloted in the spring of 1971 by the third and fourth grade teachers at Davis School.

In the fall of 1970, the high school principal became the new assistant superintendent and "he was the person who set all the machinery into gear." He provided inservices for the staff at Davis and served as a resource for the school's principal who was also newly hired. To increase his own understanding of IGE, the principal of Davis attended a one-week inservice for principals that fall and made several visits to IGE schools.

Costs for implementation were incurred in the purchase of materials, building renovation, staff inservice, and the hiring of aides. Some building renovation was necessitated by the adoption of IGE. The school library was expanded, updated, and centralized and its function was changed from a depository of books to a center for a wide variety of instructional materials and media. One administrator reported that the initial cost to the district was $4,000. He added, "There was really no major expense. That's one of the reasons that the board bought it."

Those interviewed suggested a wide range of problems encountered in preparing for the implementation of IGE. The nature of the problems cited varied with the roles of the individuals reporting. For example, those in the central office listed staff resistance as the major problem. Staff resistance took several forms--discomfort of some teachers at being observed by others, preference for the traditional classroom, and concern from junior and senior high teachers that they might be expected to change, too. The principal and teachers cited different concerns. Manageability in terms of scheduling, moving children, and paperwork were problems for many. Several cited inadequate inservice and lack of knowledge as negative factors in the earlier days. And some felt that IGE was being forced on them by central office administrators. As one individual remarked, "The assistant superintendent was working on a Ph.D. related to IGE, and he was unwilling to give us adequate time to prepare for adoption." Another commented, "The program was ramrodded on us." Lack of materials was problematic as well in the first year. Some parts of the Wisconsin Design were in the developmental stages and often were not ready when the teachers needed them. At times, they were forced to "march in place" while waiting for the arrival of the materials.

In the spring of 1972, the first and second grade teachers at Davis formed a unit and began using the study skills component of the WDRSD. At the same time the 5-6 unit departed from their departmentally organized afternoon instructional program and attempted the IPM in science and social studies. By the end of the 1971-72 school year, the entire school was organized into a multiunit structure with grades 1-2 using the IPM in reading, grades 3-4 using the IPM in reading and math, and grades 5-6 using the IPM in all subject areas. IGE at Davis School had begun.

Chronology Adoption Events (Davis School)

1967-1969	--Non-gradedness introduced into the district by a principal with the encouragement of the superintendent who felt the system needed updating.
	--Inservice held on non-graded schools for district teachers.
	--Two non-graded schools visited by district teachers.
	--Superintendent learned of IGE success in other local districts through informal contacts with their superintendents.
	--Superintendent enrolled in graduate program at University of Wisconsin and had contact with Wisconsin R & D Center staff.
Fall 1970	--Pilot teachers using WDRSD (grades 3-4) attended inservice at R & D Center.
	--Math committee established own math program with objectives.
Spring 1971	--Pilot project in WDRSD at Davis in grades 3-4.
	--Principal of high school hired.
	--School board held public meetings on IGE--superintendent and principal recommended adoption.
Mid-1971	--Board signed IGE contract with R & D Center and Department of Public Instruction.
	--Superintendent attended one-week workshop in Utah.
Fall 1971	--High school principal appointed assistant superintendent. He was enrolled in a Ph.D. program and advisor was also on R & D Center staff.
	--Principal of Davis hired. Principal attended one-week IGE inservice at R & D Center; visited IGE schools.
	--Grades 5-6 at Davis formed an I & R unit and used IPM in reading and math; science and social studies remained departmentalized.
	--Grades 3-4 continued WDRSD pilot and formed an I & R unit.
Spring 1972	--Teachers in grades 1-2 and 5-6 received inservice while implementing IGE.
	--Grades 1-2 formed a unit and used WDRSD (study skills).
	--Grades 3-4 used IPM in reading and math.
	--Grades 5-6 used IPM in all subject areas.

The Bantam Schools

Bantam, like most large cities in the United States, has suffered from urban blight. It has become the central core of an expanding metropolitan area. The suburban movement has given Bantam many of the problems usually associated with large urban cities: a declining central city population, increased demand for city services, and a shrinking tax base. A new tax structure has included city and county residents. Health, welfare, and library services have been shifted to county jurisdiction to ease the financial burdens of the city.

A massive urban renewal project led by bankers and merchants is rebuilding the downtown area. Public construction efforts have built an expressway system that joins the entire metropolitan area. A vast expansion of educational plants by the public schools and the state university and the building of new hospitals and research facilities has added to the downtown area. The city and county park systems include over 4,000 acres devoted to parks and playground.

A highly cosmopolitan city, Bantam was populated by waves of immigrants who have traditionally settled in separate areas of the city. Initially settled by New Englanders, early immigrant waves from Ireland and Germany were joined later by people from Italy and Poland. A large number of blacks have migrated to the city following World War II.

The public schools have over 50,000 students in more than 80 schools. The most compelling issue in the recent history of the district has been the efforts to establish racial balance in the schools. Mandated by a court order in 1967 to correct racial imbalance, the school district implemented a plan to achieve racial balance through the use of magnet schools. Students may attend the school of their choice. Transportation is provided by the district.

In addition to the demands of meeting the court mandated desegregation order, the district faces severe financial problems. Declining enrollments, reduced state revenues, a shrinking local tax base, and increasing inflation all have put pressure on the district to sacrifice much in order to stay within budget constraints.

The use of DMP in Bantam had its origins in the establishment of a DMP Service Center at State University and with the R & D Center's growing concern for the lack of DMP use in urban school settings. The DMP Service Center was established to assist area schools adopt and implement DMP. In making DMP available to the area schools, John McDonald, director of the DMP Service Center, contacted Stan Miner, supervisor of Special Programs for the Bantam Public Schools, to explore the possibility of using DMP in Bantam's special program schools. Preliminary discussions with Miner led to McDonald's conducting a DMP overview workshop for interested and/or potential DMP adopters. Miner became interested in DMP and, because of overlapping job responsibilities, began to work toward school support for DMP use in both special program and non-special program schools. During these early activities, however, Miner was directed by district mandate to restrict all of his job activities to special program schools. This caused Miner to discontinue all of his activities relative to DMP, special program schools included.

Subsequent to Miner's breaking off the possibility of DMP in Bantam, McDonald contacted Nancy Potter, Bantam's Director of Mathematics and Science, to solicit her support in jointly submitting a National Science Foundation grant that would open the door for DMP implementation in the district. The grant proposal was written and submitted but failed to gain approval.

During the time that McDonald was attempting to gain entrance to the Bantam Public Schools, the R & D Center was formulating a research study that focused on the impediments to implementing curricular innovations, DMP in particular, in urban schools. The study, once approved, required the identification of an urban site. The coordinator of the research project began to solicit participation from several urban sites. Because of McDonald's initial efforts in Bantam, he was asked to explore the possibility of participation with representatives of Bantam. Assuming that task, McDonald contacted Potter. In May 1977, a meeting was held in Bantam to outline the specifics of the study and to detail the commitments of both the R & D Center and Bantam Public Schools. In addition to the R & D Center representative, Nancy Potter, and John McDonald several Bantam elementary school principals were in attendance.

Negotiations continued until July 1977 when, a contract between the R & D Center and Bantam Public Schools was signed. The contract, in addition to formalizing Bantam's participation, detailed the responsibilities of both parties. The R & D Center was obligated to provide the non-consumable DMP materials for each of the participating schools. Bantam Public Schools was responsible for providing the student consumable materials for each of the participating schools. The program was to begin in grades K-2. The contract was for one year with the provision for one-year extensions, if agreeable to both parties. Each extension, if agreed to, would expand the program to one higher grade level. The obligations required of both parties in the base contract would be extended to include the new grade level. In addition, the R & D Center was also obligated to provide inservice for the teachers using DMP. This obligation was also included with each yearly extension. In July 1977 the R & D Center received a letter from Potter naming the four schools that had agreed to participate in the study. Three of those schools are included in the current study.

The process of selecting the four schools began with Potter and the deputy superintendent establishing three criteria they believed essential if the project was to be successful: (a) early involvement in the district's desegregation plan, (b) adequate funding, and (c) an acceptable school staff.

After reviewing the district's elementary schools, a list of approximately eight schools meeting the criteria was established. Participation was voluntary. From this list, the final selection was made by the deputy superintendent: Canal, Ware, Miller, and Pine schools. Pine School is not included in the present study. What happened between the time Bantam agreed to participate in the study and the letter was received by the R & D Center that designated the participating schools is described for each of the three schools participating in the study.

Miller School

The principal of Miller School, Joyce Hartman, and Leslie Pierce, a district math coordinator housed at Miller School, played the pivotal role in obtaining participation in the study. At the time of the May 1977 DMP meeting, Hartman had not been appointed principal of Miller School. Upon Hartman's appointment, Potter contacted her to solicit participation in the project. Hartman discussed the possibility with Pierce. According to Hartman, she alone made the final decision. Two reasons were given: the philosophical orientation of DMP was consistent with her own and that of Pierce, and a high value was placed on Potter's judgment and her commitment to DMP.

Having agreed to participate, the "selling" of DMP to the staff was the next task that confronted Hartman. She used informal discussions during summer curriculum work and the first few weeks of school to gain approval of staff in grades K-2, those that would be using DMP that year. She was successful.

Canal School

The involvement of Canal School had its beginning in the years preceding the school's participation. Wilson Krueger, principal of Canal School, had been a high school math teacher. Krueger's interest in math education led to participation in the district math committee. Through this involvement, Krueger had frequent contacts with Potter. Potter perceived Krueger as having a leadership role in the improvement of mathematics in the district.

The school's decision to become involved in the study followed Potter's personal contact with Krueger. Krueger told Potter that participation would depend on an affirmative staff vote. Potter held several staff meetings to explain DMP. DMP, according to Krueger, was consistent with his beliefs about how mathematics can best be taught at the elementary level. His desire to have DMP used in Canal School was no secret to the staff. He did not want to let chance enter into the final vote so he told the staff to think about the use of DMP and then indicate in writing whether they would like to use the program. He further indicated that he, personally, would come into their rooms to collect the ballots. Thus, DMP was supported by the staff. Krueger admitted that staff approval, while taken by secret vote, was gained through a rather "co-optive method."

Ware School

Like the principal at Miller School, the principal of Ware School was appointed after the initial DMP meetings were held. How then did Miller School become a participating school? Interestingly, it occurred through a series of interpersonal relationships involving several people within and outside the school. When Wilma Fuller was appointed principal, she delegated virtually all curricular and instructional decisions to Sarah Carver, the school's curriculum consultant. A curriculum consultant was not assigned any students and was on-site to assist teachers in a variety of unspecified ways. Carver's area of expertise was in the field of reading, but she was confronted with the responsibility of organizing the school's other curricular programs.

This was the school's first year as a magnet school in the district's desegregation plan. Many of the staff were new to the school. The curricular programs for the upcoming year had to be selected. A district math supervisor, a personal friend of Potter's, was also housed at Ware School. Potter and the math supervisor discussed DMP and were impressed with the program. When organizing the math curriculum, Carver sought input from the math supervisor, who in turn indicated that DMP was an acceptable program. During the time of the discussions between Carver and the math supervisor, Potter contacted Fuller to solicit Ware School's participation in the study. Fuller, who delegated such matters to Carver, turned to her for advice. Carver accepted the invitation. Potter indicated Ware School was a good site for the program, having the personnel, the program, the funding, and being in a key geographical area in the desegregation plan.

Getting Started

Once the schools were selected, the next major task was to provide DMP materials. In July 1977 Potter notified the R & D Center of the quantity of materials needed for each of the participating schools. Potter also indicated she needed help in ordering the materials necessary to fulfill Bantam's obligation. Materials were ordered and arrived in time for McDonald to conduct a DMP workshop in September 1977 for teachers using DMP in each of the participating schools. The workshop took on a "how-to-do-it" orientation. McDonald brought several experienced DMP teachers from another district to assist in the workshop activities. With this initial workshop completed, schools open, and the promise of additional inservice, teachers in grades K-2 at Ware, Miller, and Canal schools began using DMP for the first time.

Chronology of Adoption Events (Bantam Schools)

1975	--DMP Service Center established at State University. John McDonald, director.
1976-1977	--John McDonald contacted Stan Miner to explore the possibility of DMP's use in Bantam Public Schools.
	--DMP workshop conducted by John McDonald in Bantam for selected participants.
	--Stan Miner forced by district policy to withdraw his involvement in support of DMP.
	--McDonald and Nancy Potter, director of mathematics and science for Bantam Public Schools, wrote and submitted an NSF proposal to establish DMP in Bantam. The proposal was not funded.
	--Wisconsin R & D Center approved a study to examine the use of DMP in urban school districts.
	--R & D Center staff began to solicit participation of several urban sites.
3/1977	--McDonald asked by R & D Center representative to seek participation of Bantam Public Schools in the study. McDonald contacted Nancy Potter.
5/1977	--A meeting in Bantam held to describe details of the study. In addition to the R & D Center representative, Nancy Potter and John McDonald several school administrators attended.
	--Bantam agreed to participate in the study.
	--Nancy Potter and the deputy superintendent established criteria for selecting participating schools.

--The deputy superintendent selected schools that fit the criteria.

--Nancy Potter contacted principal of Canal School to request participation. Principal accepted after voting by staff members.

--Nancy Potter contacted principal of Miller school to secure participation. Principal accepted.

--William Fuller appointed principal of Ware School. Fuller delegated all instructional concerns to Sarah Carver, the school's curriculum advisor.

--Nancy Potter contacted Fuller, principal of Ware School, to solicit participation in the study. With the approval of Carver, she accepted Potter's invitation.

7/1977 --Nancy Potter formally notified R & D Center of the participating schools.

9/1977 --John McDonald, director of the DMP Service Center, conducted a DMP workshop for the K-2 teachers in the designated schools.

--K-2 teachers began use of DMP.

CHAPTER V

FINDINGS, CONCLUSIONS, AND IMPLICATIONS

The purpose of this technical report is to present the Studies of Implementation findings from the first year of data collection which relate to the research question: What factors affect the decision to adopt an innovation? In Chapter IV, case studies of the adoption process in 13 research sites were presented. In this chapter, the data presented in the case studies will be analyzed and discussed from several different perspectives.

First, the findings will be analyzed with respect to the three related strands of literature which were reviewed in Chapter II. Findings will be presented and discussed regarding: (a) the change models, (b) the general adoption literature, and (c) the IGE adoption research. Next, empirical findings, i.e., findings which emerged from the data, will be described. These empirical findings include an alternative conceptualization of the adoption process, identification of additional key factors in the adoption process, and several specific findings germane to this study. Chapter V will conclude with the research implications of the first year of data collection.

Findings Related to the Literature

The Change Models

Six change models representing a diversity of assumptions about the role of participants in the change process, the origin of a proposed change, and the phases in the adoption process were presented in Chapter II. These models purportedly describe and prescribe behavior during the change process. When compared with the adoption behavior in our 13 research sites, none of the 6 models had great explanatory power. Rather, the data from the 13 sites suggests that these models are inadequate in depicting the adoption process. Their inadequacy stems, we believe, from two factors: (a) the models in general are based on seemingly unjustified and, in some cases, naive assumptions; and (b) the individual models tend to highlight one part of the change process and, as a result, are only partial explanations of a more global process.

The section immediately following, "Assumptions of the Change Models," discusses two major assumptions common to the six change models, and the applicability of these assumptions to the study sites in general. The next section, "Varying Emphases of the Change Models," provides a more detailed discussion of the adequacy of the individual change models in explaining the adoption process at the 13 sites by examining the fit of the models in each site. An analysis of the adoption data is then presented with reference to the A VICTORY list of innovation adoption factors, followed by a discussion of the Wisconsin research sites adoption processes in relation to the IGE adoption research conducted by Goodridge (1975).

The Assumptions of the Change Models

Two major assumptions on which the change models are based did not hold in the actual adoption experiences of the 13 research sites. The first assumption, a prerequisite of the problem-solving, linkage, and CBAM models, is that awareness of an educational problem is the stimulus for seeking an innovation. As will be explained more fully later, awareness of the problem was the stimulus for change in only 5 of the 13 sites and in only 1 case was the problem related to instruction.

The second assumption which was not met in the 13 sites relates to the role of the user system. While there is some variation in the amount of user participation prescribed in the six change models, all six assume a somewhat active role for the user system. The problem-solving model specifies the greatest participation and the R & D and IGE models the least. The remaining models depict an intermediate amount of participation (see Table 6). In this study, the innovation in question is the Instructional Programming Model (IPM) and the "users" of the innovation, i.e., the individuals who actually apply the innovation to the client group, are classroom teachers. As will be shown, classroom teachers tended to play only a minimal role in the adoption of the innovation in their schools.

An explication of the inappropriateness of these primary assumptions in relation to the actual adoption process in the 13 sites will be presented below.

Assumption One: The stimulus for seeking an innovation is awareness of an educational problem.

The problem-solving, linkage, and CBAM models specify that the change process begins with the awareness of an educational problem. Campbell (1966) alternatively suggests that the change process may begin with either problem awareness or awareness of an

Table 6

Assumptions About the Role of the User System in the Six Change Models

Model	Awareness
Problem-Solving Model	The user system recognizes a need or problem and desires a solution. The user system actively participates in seeking a solution. The user system actively participates in the selection of the solution.
Social-Interaction Model	The adoption process begins with awareness of the innovation or of a problem by the user system. The user system actively seeks information about the feasibility of the innovation for the present situation.
RD&D Model	The user system accepts the recommendation of the research organization to adopt the innovation.
Linkage Model	The user system recognizes a need or problem and desires a solution. There must be a reciprocal relationship between the resource and user systems characterized by the ability of each to stimulate the search and retrieval process of the other.
CBAM	The user system recognizes a need or problem. The innovation is adopted by the user system to solve an identified problem.
IGE Model	The user system has the option to accept or reject IGE.

innovation and that "the major determinant factor in the dichotomy is whether recognition of the problem comes before-or-after awareness of the innovation in question" (p. 461). Using Campbell's determinant factor, the adoption stimulus in the 13 sites was identified. As shown in Table 7, awareness of the innovation was the adoption stimulus in 8 of the 13 sites. Teachers, principals, or central office people became aware of IGE (and the IPM) or DMP before perceiving a problem state in their school or district. Interest in adoption of the innovation grew out of the knowledge of its existence.

Though the IPM is an instructional innovation, there was only one case of problem awareness in which the identified problem was an instructional problem. At Rise School, primary teachers were troubled by the "nagging problem of several non-readers each year" and consciously sought an alternative to the traditional age-graded reading instruction.

In the four remaining schools (three in urban areas) where problem awareness preceded innovation awareness, the problems were of a very broad educational nature. In the school district where Davis School was located, the superintendent observed little interaction between the elementary schools and identified a need to pull his badly fragmented system together. He therefore began searching for an innovation to unify the district. Star School was designated as an IGE school because of the need to provide a specialty school in

Table 7

The Adoption Stimulus in the Thirteen Research Sites

School	Adoption Stimulus (Innovation)	Awareness by Whom
Lewis	Innovation Awareness (IGE)	Resource System[e] (Principal & Teachers)
Star	Problem Awareness[a]	Resource System (Central Office)
Arrow	Innovation Awareness (IGE)	Resource System (Central Office)
Mercury	Problem Awareness[b]	Resource System[e] (Central Office)
Meadow	Innovation Awareness (IGE)	Resource System (Principal & Central Office)
Sawyer	Innovation Awareness (IGE)	Resource System (Central Office)
Rise	Problem Awareness[c]	User System (Teachers)
North	Innovation Awareness (IGE)	Resource System (Central Office)
Davis	Problem Awareness[d]	Resource System (Central Office)
York	Problem Awareness[b]	Resource System[e] (Central Office)
Canal	Innovation Awareness (DMP)	Resource System (Central Office)
Ware	Innovation Awareness (DMP)	Resource System (Central Office)
Miller	Innovation Awareness (DMP)	Resource System (Central Office)

Notes.

[a] a social-political problem--the need to respond to a desegregation order

[b] overcrowding--the need to build a new school

[c] an instructional problem--nonachieving students

[d] a general educational need--to unify the system

[e] user system did not exist; school not yet constructed

the central city and comply with the desegregation order. Both Mercury and York schools were newly built in the mid-1970's in response to population growth on the edge of the city. In both cases, the need to build a new school prompted the appointment of building committees and the subsequent search for an instructional program to be housed there.

In sum, problem awareness preceded innovation awareness in only 5 of the 13 sites. In only one of the five cases was the identified problem an instructional one. Therefore, in the majority of the schools studied, a basic assumption of the problem-solving, linkage, and CBAM models did not hold.

Assumption Two: The user system plays an active role in the adoption process.

The amount of user-system participation prescribed by the six change models varies according to the model (see Table 6). In addition to specifying problem awareness as the adoption stimulus, the problem-solving, linkage, and CBAM models further require that the problem be identified by the user system. As Table 7 clearly shows, of the five cases in which problem awareness was the adoption stimulus, in only one instance (Rise School) was the user system responsible for problem identification. In the four other cases where problem awareness preceded knowledge of the innovation, i.e., at Star, Mercury, Davis, and York schools, central office personnel recognized the broadly defined educational concerns.

It is interesting to note that in the eight cases where the adoption stimulus was innovation awareness, the resource system, i.e., persons other than the teaching staff, first became knowledgeable of the innovation (see Table 7). Generally, central office personnel were the first to learn of the new idea but in two cases principals were also knowledgeable. In one case (Lewis School) where teachers were mentioned as among the first to hear of the innovation, the school at which the innovation was eventually implemented was not yet in existence. Though some teachers were involved, they were not the subsequent implementors and cannot be considered to be the user system. At Rise School, the teachers were the first to become aware of the IPM at a college course and later implemented the IPM in reading.

While the social interaction model does not require that problem awareness or innovation awareness be identified by the user system, it does specify that the user system be actively involved in seeking information about the feasibility of the innovation for the present situation. The teachers in only two sites, Rise School and North School, actually participated in exploring the appropriateness of the innovation for their own personal school setting.

Who, then, sought a solution to an identified problem, examined the feasibility of the innovation and, finally, made the decision to adopt the innovation? In an overwhelming number of cases, 11 out of 13, central office personnel were key in the adoption process (see Table 8). In only two exceptions, again at Rise School and North School, were teachers (i.e., the user system) involved.

Table 8

Locus of the Formal Decision to Adopt the Innovation and Confirmatory Status of the User System and Local School Board at the Thirteen Research Sites

School	Locus of Formal Decision	Opportunity to Confirm Adoption by the User System	Confirmation by the Local School Board
Lewis	Principal and Central Office	No[a]	Yes
Star	Central Office Management Team	No	Yes
Arrow	Central Office	No	
Mercury	Building Committee	No[a]	Yes
Meadow	Principal and Central Office	No	Yes
Sawyer	Central Office and Principal	No	Yes
Rise	Principal and Staff	Yes	Yes
North	Principal and Staff	Yes	Yes
Davis	Central Office	No	Yes
York	Building Committee	No[a]	Yes
Canal	Central Office and Principal	Yes	Yes
Ware	Central Office and Resource Teacher	No	Yes
Miller	Central Office and Principal	No	Yes

Note.

[a] user system did not exist at the time of the formal decision to adopt--i.e., a new school was created

In 8 of the 11 cases where the central office played a major role, the decision to adopt was shared. At Lewis, Meadow, Sawyer, Canal, and Miller schools the decision was shared between the central office and the school principal. At Ware School, the school resource teacher and her central office supervisor agreed to adopt the innovation. Central office influence to adopt IGE was indirect at Mercury and York schools; building committees who eventually examined alternatives and made decisions were appointed by central office administrators. The adoption of IGE for Star, Arrow, and Davis schools was decided exclusively at the central office level.

All six change models specify that the user system at least has the opportunity to accept or reject the adoption of the innovation. As indicated in Table 8, however, teachers in only three schools had an opportunity to confirm or reject the adoption of the innovation. Thus, the active role of the user system prescribed by the various models did not hold in the majority of cases.

The Varying Emphases of the Change Models

The six change models differ with respect to the emphasis they place on the various aspects of the change process. Their varying emphases are made explicit by a closer examination of the underlying assumptions on which the models are based. The assumptions which apply to the adoption process--i.e., those activities which precede the actual use of an innovation--for each of the six change models are as follows:

Problem-Solving Model

1. The user system recognizes a need or problem and desires a solution.

2. The user system actively participates in seeking a solution.

3. The resource system assumes a collaborative role.

4. The user system actively participates in the selection of the solution.

Social-Interaction Model

1. The innovation to be adopted is already in a developed form.

2. The adoption process begins by awareness of the innovation or a problem by the user system.

3. Innovation awareness occurs through personal contact with professional peers.

4. The user system actively seeks information about the feasibility of the innovation for the present situation.

RD&D Model

1. The innovation is created by an R & D organization employing an orderly developmental sequence.

2. Awareness of the innovation by the user group is the result of dissemination efforts by representatives of the R & D organization.

3. The user system accepts the recommendation of the research organization to adopt the innovation.

Linkage Model

1. The user system recognizes a need or problem and desires a solution.

2. There must be a reciprocal relationship between the resource and user systems characterized by the ability of each to stimulate the search and retrieval process of the other.

3. The development of reciprocal relationships creates a stable and long-lasting social influence network.

CBAM

1. The user system recognizes a need or problem.

2. The innovation to be adopted is already in a developed form.

3. A collaborative adoption system, a temporary third system, links the user and resource system together.

4. The innovation is adopted by the user system to solve an identified problem.

IGE Model

1. The innovation to be adopted is IGE--an already-developed innovation.

2. IGE must be adopted simultaneously at all levels of the school,

3. The IGE resource system (the R & D Center or its representatives) initiates contact with the user system during adoption.

4. Training and information to the user system are provided by the Wisconsin R & D Center, /I/D/E/A/, or their recognized representatives.

5. Inservice training must be provided to principals and teachers prior to the implementation of IGE.

6. The adoption of IGE is formalized by written or stated agreement between school officials and implementation agencies.

7. The user system has the option to accept or reject IGE.

As can be seen from the assumptions, the problem-solving model emphasizes the process by which innovations are developed or by which solutions to problems are reached. The RD&D model and the linkage model, on the other hand, emphasize not only innovation (solution) development but also the process by which the innovation is spread. The social interaction perspective emphasizes only innovation spread; therefore, the diffusion process is detailed fully in the model but the processes by which innovations are developed and implemented are only sketched. The CBAM and IGE models assume an already-developed innovation and emphasize the way innovations are spread and implemented.

As a result of their varying emphases, none of the 6 change models adequately describes the adoption experiences in all 13 sites. Rather, some of the models explain parts of the adoption histories in various sites, or several models combine to explain the adoption behavior in one particular school. In order to analyze the explanatory power of each of the models with respect to the data from the 13 schools, we have constructed Table 9 which indicates the fit between the adoption data and the adoption assumptions

Table 9

Fit of the Adoption History in the Thirteen Sites

With the Assumptions of the Six Change Models

Schools	Problem-Solving	Social-Interaction	RD&D	Linkage	CBAM	IGE
Lewis	O[a]	H	L	O[a]	L	M
Star	O	H	L	O	L	M
Arrow	O	M	L	O	L	M
Mercury	O[a]	H	L	O[a]	L	M
Meadow	O	H	L	O	L	L
Sawyer	O	M	M	O	H	M
Rise	A	A	A	L	M	M
North	O	M	M	O	L	A
Davis	O	H	L	O	L	L
York	O[a]	H	L	O	L	M
Canal	O	H	A	O	H	NA[b]
Ware	O	H	M	O	H	NA[b]
Miller	O	H	M	O	H	NA[b]

Key. A = all assumptions met
M = more than half the assumptions met
H = half the assumptions met
L = less than half the assumptions met
O = none of the assumptions met

Note.

[a] user system did not exist at the time of adoption
[b] does not apply--the innovation adopted was not IGE

of the models. The following discussion will first describe the fit of the models with each site and then will detail the applicability of each of the models overall.

Lewis School

Lewis School did not exist at the time a decision was made to adopt IGE. Therefore, there was no user system in existence at the time of adoption. The lack of a user system (i.e., a group of teachers slated to put the innovation into practice) immediately made several of the change models inadequate descriptors of Lewis's adoption process. None of the assumptions of the problem-solving or linkage models could be met when a user system did not exist. The social interaction and IGE models offered the best explanations of the adoption history at Lewis School; at least half of the assumptions of these two models were met in this site. But, the failure to meet all the assumptions of either of the two models lay again in the lack of an existing user system.

The social interaction model accurately describes the diffusion of IGE at Lewis. The principal and central office personnel became aware of IGE through contact with professional peers and they relied on their peers for information in order to assess the feasibility of the innovation for their present situation. The principal, for example, enrolled in an IGE course at the local university and for his course project submitted a plan for implementing IGE in his district.

Five of the seven IGE assumptions were met at Lewis. Because the user system did not exist, acceptance or rejection of IGE was not possible. Nor did the IGE resource system initiate contact in the school district.

Star School

IGE came to Star School as a result of a central office mandate to implement the innovation. The user system at Star School was not at all involved in the decision-making process and because the change models rest heavily on the assumption of an active user system, none of the models adequately explains the adoption process at this site. The IGE model offers the best fit and the social interaction perspective a partial description.

Arrow School

The IGE and social interaction perspectives best describe adoption behavior at Arrow School. Contact with professional peers was the key method through which the innovation was spread. The assistant superintendent's contacts with the local university were largely responsible for her knowledge of the innovation. The IGE model fit the decision-making process with the important exception that the user system did not have the option of rejecting or accepting IGE.

Mercury and York Schools

Like Lewis School, Mercury and York schools did not exist at the time the decision to adopt IGE was made. The social interaction model tends to describe the method by which knowledge of the innovation was spread; the IGE model describes the decision-making process.

Meadow School

The "top-down" decision which brought IGE to Meadow School cannot be adequately explained by any of the six change models. Only the social interaction offers a framework for thinking about how the innovation was spread: through the superintendent's and principal's contact with the local university.

Sawyer School

Certain events leading to the adoption of IGE at Sawyer bear resemblance to the social interaction, RD&D, and IGE models. Administrator contacts with professional peers again describes the way in which the innovation was spread. The nature of the contact and interaction with the Wisconsin R & D Center during the adoption process replicates, in part, behavior prescribed by the RD&D model. The IGE model describes the inservice arrangements and the role of the resource system in the adoption process at Sawyer. Since the user system did not have the opportunity to accept or reject the innovation, all the assumptions of the RD&D and the IGE could not be met.

Rise School

Rise School represents the only school in the sample which met all of the assumptions of any of the change models. The adoption history at Rise conformed to the prescriptions of the problem-solving, social interaction, and RD&D models. Rise has an unique adoption history when compared to the other schools in our study. This uniqueness lay in two related events: (a) the adoption process at Rise began as a result of problem awareness, and (b) the awareness of the problem was felt by the very system which then actively sought a problem solution. The teachers (i.e., user system) became aware of the IGE innovation through contact with university people. As their interest in IGE grew, they established a relationship with the R & D Center to explore the possibility of adopting IGE at their school. Thus the three models--one which emphasizes solution development, one which emphasizes innovation diffusion, and one which equally emphasizes solution development and diffusion apply.

North School

Although the teachers at North School actively participated in the decision to adopt IGE, the adoption process did not begin because of awareness of a problem state. Rather, teachers and the principal became aware of the innovation as a result of their contact with central office personnel. Thus, the social interaction and RD&D models partially describe the experiences at North School but the assumptions of the problem-solving model are not met.

Davis School

As in Meadow School, IGE came to Davis School as a result of a "top-down" decision. Unlike Meadow, however, inservice training to the user system was not provided prior to the use of the innovation. Nor were teachers allowed to vote on adoption. Thus, fewer than half of the assumptions of the IGE model were met. Only the social interaction model offers any partial description of the events at Davis--the superintendent learned of IGE through neighboring superintendents and through his college contacts at the local university.

The Bantam Schools--Canal, Ware, and Miller

The adoption histories at the three Bantam schools tended to be quite similar. The RD&D model best explains the way in which the school system became involved with the innovation and the process by which an adoption decision was made. The only difference between the three schools was that at Canal School teachers had an opportunity to vote on the adoption; therefore, all the assumptions of the RD&D model were upheld.

The Utility of the Models

The Problem-Solving Model

The problem-solving model fully described the adoption process in only one of the 13 sites--Rise School. The problem-solving model, which emphasizes an orderly, rational procedure for solution development, could also describe events at Mercury and York schools if the user system had been redefined to mean the school building committee (since an actual user system did not exist at the time of adoption). The problem-solving model seemed inapplicable to the adoption histories of the 13 sites primarily because (a) problem awareness was rarely the stimulus for adoption, and (b) the user systems were only infrequently involved in either seeking or selecting a problem solution.

The Social-Interaction Model

At least half of the assumptions of the social-interaction model were met in all 13 sites. At Rise School, all the assumptions were met. Of the six change models presented in Chapter II, the social-interaction model, which emphasizes the spread of innovations, was the most applicable in all sites. Its widespread applicability highlights the importance of collegial contact in the diffusion of innovations. Its narrow emphasis on diffusion, however, makes it a very limited change model.

The Research, Development, and Diffusion Model

The RD&D model assumes that an innovation has been developed by an R & D organization employing an orderly development sequence. For both innovations--IGE and DMP--this assumption held in all cases. The RD&D model further assumes that the innovation is disseminated by the R & D organization and that the user system has the opportunity to approve of its adoption. In two of the 13 sites, all these assumptions were met. Often, however, the model failed to explain the adoption history because either (a) the R & D Center was not the disseminator (in 1 case), (b) the user system had no opportunity for approval (in 3 cases), or (c) neither condition (a) or (b) was met (in 7 cases). The RD&D model is a highly specialized model because of the assumed role of R & D organizations. While it seems reasonable that the model should be applicable to the adoption of IGE and DMP, which were R & D innovations, it was not.

The Linkage Model

The linkage model did not apply in any of the 13 sites. The lack of applicability of the linkage model is not surprising given its historical development. The linkage model is an eclectic model which is based on a synthesis of the problem-solving, RD&D, and social-interaction models. As such, it is a prescriptive model of logico-deductive origin and is not data based. Given that the three previous models failed to have great explanatory power, it is not surprising that the eclectic model is of even less use in describing real world behavior.

The CBAM

The CBAM, according to its developers, is also an eclectic model. As such, it too contains much prescriptive behavior but is based on little descriptive data. In only 5 of the 13 sites were half or more of the assumptions of the CBAM met. Two assumptions tend to make this model inapplicable to the data in the 13 sites. First, the model assumes that the stimulus for adoption is problem awareness. Second, the model assumes the creation of a temporary third system, a "collaborative adoption system," which links the user and resource systems. In the 13 sites, these temporary systems did not occur. Again, the model appears to be heavily prescriptive--a third system "should" develop--rather than descriptive of how planned educational change has been observed to occur.

The IGE Model

One could reasonably expect that since the innovation under study is IGE, the IGE model of change should describe the adoption experiences of 10 of the 13 sites. Yet all of the assumptions underlying the model were met in only one of the ten cases--North School. Generally, however, two of the seven underlying assumptions were not true. The common factor in the two assumptions is again the user system. The resource system, according to the model, supposedly makes contact with the user system and the adoption process begins. In reality, the resource system contacted administrators. Teachers were involved only after the decision to adopt was made. Second, teachers (the user system) very rarely had an opportunity to approve adoption. The fact that the adoption behavior in the research sites did not conform to the assumptions of the IGE model implies that this model, like the Linkage and CBAM models, is a prescriptive model which tells what "ought" to be but not necessarily what usually is the case.

The General Adoption Literature

The adoption literature is replete with acronymic lists of the factors necessary for innovation adoption by organizations. The A VICTORY list suggested by H. Davis (1971) was chosen as a focus for collecting and analyzing the adoption data in this study because of the representativeness and parsimony of the list. Questions which focused on each of the eight factors in the A VICTORY list were posed in the history interviews. The data from the history interviews reveal a wide variation in the perceived importance of each of the factors across the 13 research sites. While the adoption outcome was the same in all sites, i.e., all sites agreed to adopt either IGE or DMP, there were considerable differences between sites in terms of such factors as yield (or perceived benefits) and resistance (or inhibiting factors).

In order to analyze the data from the perspective of the A VICTORY list and to highlight the interesting variation among the sites, each of the factors will be discussed separately. First, each factor, as defined by H. Davis (1971) will be presented with the corresponding questions from the interview schedule indicated (see Appendix A for a copy of the interview schedule). Then examples which highlight the range of importance of each factor among the sites will be offered.

> A = ABILITY, the resources and capabilities of the organization to implement and subsequently evaluate the innovation; sanctions of decision makers to adopt the innovation (Questions 4, 6, 7, 8, 13, 14).

Ability includes three key concepts--resources, capabilities to implement and sanction of decision makers. While there seemed to be little variation among sites in terms of sanction by decision makers, there was considerable variation in terms of resources and capabilities to implement. With respect to administrative sanction, in all 13 sites school boards gave formal approval to adopt the innovation. In 11 of the 13 sites, administrators--at the central office or school level--not only sanctioned the adoption decision,they actually made the decision to adopt. Rarely was teacher sanction of adoption requested. The commitment of resources to the innovation varied considerably. For example, at Rise School aides were hired to support the IGE adoption decision; at Sawyer School, aides were hired at the same level as in non-IGE schools. Whereas a new instructional materials center was constructed prior to the implementation of IGE at Davis School, no structural changes were made at North School prior to implementation. In terms of capabilities to implement, there were also great differences among sites. For example, teachers at the three Lakeside schools received a minimum of 40 hours of inservice training prior to adoption, whereas teachers at Davis, Sawyer, and Miller schools received little or no inservice preparation prior to use of the innovation.

V = VALUES, the degree of accord with the organization's philosophy and operating style (Questions 2, 3, 9, 10, 11, 12).

The "values" factor has two parts--the innovation's accord with the existing organization's philosophy and harmony with the organization's operating style. Again, tremendous variation among the sites in the importance of this factor is suggested by the data. In some sites, informants reported that IGE was philosophically consistent with existing practices. As the principal at

Lewis School remarked, "Some of us were already individualzing instruction in our classrooms but we didn't call it IGE then." Alternatively, prior to adoption, some sites were philosophically distant from IGE. At Davis School, teachers were teaching in a very traditional vein as "they had for the previous 10, 15, 20 years" and were required to adopt a program which, in the words of one respondent was "ramrodded on us." There was greater or lesser harmony between the existing operating style of the various sites and the operating style required by adoption of the innovation. At North School, for example, fifth and sixth grade teachers had been jointly planning the math program and sharing students for several years. At Sawyer, however, no such planning and sharing existed prior to IGE; each teacher taught an age-graded, self-contained classroom.

> I = IDEA, the adequacy of knowledge about the innovative procedure and the proposed actions steps (Questions 1, 4, 9).

Perhaps the greatest range between the adequacy of knowledge prior to use of the innovation exists between Meadow School and Rise School. At Meadow School, according to informants, the use of the innovation began on a wet and rainy Monday morning with all the books piled in the middle of the floor and the students present. Staff preparation had been limited to a few "largely frustrating" IGE meetings conducted by the principal. At Rise School, on the other hand, teachers took a summer school course and carefully planned the proposed implementation of IGE. They met frequently with their principal during the summer months to outline their implementation strategy.

C = CIRCUMSTANCES, features of the organization environment relevant to successful adoption in adaptation of an innovation (Questions 3, 5, 8, 9, 11).

The range in organizational environments conducive to adoption is great among the sites. On the one hand are districts whose administrative leadership is so powerful that adoption can be required without teacher approval. Meadow and Davis schools contain examples of this strong leadership. On the other hand are school districts in which teacher autonomy is prized and a decision by teachers to adopt an innovation is allowed. Rise and North schools represent this opposite extreme.

T = TIMING, readiness to consider the innovation; the particular combination events at a given time that might affect the likelihood of implementation (Questions 3, 5, 8, 9, 11).

Among the sites, there were differences in the felt need to change, specifically in which status group felt the need and the motivation for the need. In some cases, such as at Rise School, teachers felt the need to change because of the perceived inadequacy of their reading program. At Star School, teachers felt the need to adopt IGE because it had been mandated by the central office. At Davis and Arrow schools, central office administrators felt a compelling need to bring change to their districts because they were hired by their school boards with that specific purpose in mind. The obligation to change, like the timing factor, was important in all sites. But, who felt the obligation and for what reasons varied considerably.

R = RESISTANCES, inhibiting factors--the organizational or individual disinclination to change, for whatever reasons (Questions 13, 14).

Though we asked specifically about opposition to the adoption of the innovation, there was no data to support the idea of organized opposition. Yet, some sites reported hesitation by some teachers and a "wait-and-see" attitude by others. It appears that opposition was less at Rise and North Schools where the teachers had an opportunity to vote on adoption. Resistance seemed very minimal at Lewis, Mercury, and York schools where teachers were hired knowing that their new school would be an IGE school. At Star, Davis, and Meadow schools some resistance was noted. With the possibility for transfer remote, resistance has taken the form of the continuation of non-IGE practices in an IGE setting.

Y = YIELD, the benefits or payoff from the innovation as perceived by potential adopters and by those who would be involved with implementation at the operating level (Question 2).

The perception of the yield for adopting the innovation varied between and within sites. For example, teachers at Rise School felt the children would profit greatly from a reading program more suited to their needs; teachers at Meadow perceived no advantages to implementing a program which had been imposed on them.

At Davis School, the administrators believed the introduction of IGE would allow for better staff utilization and eliminate the need for substitutes; teachers at Davis in favor of the innovation felt the adoption of IGE would allow them to better meet the needs of each individual student.

The eight factors from the A VICTORY list have been used to analyze the adoption histories of the 13 sites. Great variation between the sites with respect to the degree of importance of several of the factors has been noted. Two factors--timing and obligation--were universally important among the sites; yet, within the sites there were considerable differences in the perceptions of their importance. The adoption histories will now be related to previous IGE adoption research.

The IGE Adoption Research

As discussed in Chapter II, Goodridge (1975) conducted research in eight IGE schools in an attempt to identify those people who made the final decision to adopt IGE and those factors which influenced that decision. Based on the data, he reached 16 conclusions which he categorized into three general areas: (a) conclusions about decision makers; (b) conclusions about influential factors; and (c) supplementary conclusions. In this section, we will discuss the findings from our research in ten Wisconsin IGE schools as they relate to Goodridge's conclusions. The history of the adoption of DMP in the three Bantam schools will not be addressed from this perspective since the Bantam schools did not adopt IGE concurrently with DMP.

Conclusions About Decision Makers

> 1. Principals were the major decision makers concerning the decision to adopt IGE in the target schools. In the majority of cases, this decision was shared with the staff teachers (Goodridge, 1975, p. 149).

Our data did not generally support the conclusion that the principal was the main decision maker and that the decision was usually shared with the teachers. As shown in Table 10, in only five of the ten cases was the principal even involved in the decision and in only two of these five were teachers involved. In the other three situations, the principals shared the decision with central office people. In the remaining five cases, the principals were not involved in the decision at all. In three cases, the decision to adopt IGE was exclusively a central office decision and in two cases a Building Committee decided.

> 2. The superintendent was not a participant in the making of the adoption decision in any of the schools where the major decision makers were the principal and the staff (Goodridge, 1975, p. 149).

In order for conclusion two to be true, the conditions for conclusion one must have been met. As Table 10 shows and as the previous discussion indicated, this conclusion could only have possibly been true at Rise and North schools. And, indeed, it was true in these two cases. The respective superintendents played no role at all in the decision to adopt IGE.

Table 10

Fit Between the Studies of Implementation Adoption Data and Goodridge's Study of IGE Adoption: Decision Makers

School	Conclusions About Decision Makers				
	1[a]	2[b]	3[c]	4[d]	5[e]
Lewis	T;O (Shared with Central Office)	NA	NA	T;O	T
Star	O	NA	NA	T;O	T
Arrow	O	NA	NA	T;O	T
Mercury	O	NA	NA	T;O	T
Meadow	T;O (Shared with Central Office)	NA	NA	T;O	T
Sawyer	T;O (Shared with Central Office)	NA	NA	T;O	T
Rise	T	T	NA	T;T	T
North	T	T	NA	T;T	T
Davis	O	NA	T	T;O	T
York	O	NA	NA	O;O	T

Key. T = True O = Not True NA = Not Applicable

Note: 1[a] = Principal was major decision maker; decision shared with teachers.

2[b] = Superintendent not involved in the decision. The principal and/or teachers were decision makers.

3[c] = If superintendent and board decided, teachers and principals were not involved.

4[d] = Parents minimally involved; central office minimally involved.

5[e] = School board was not influential but gave formal approval.

> 3. In the one case where the superintendent and the board shared the adoption decision process, the principal and the staff teachers were excluded from participating in this decision (Goodridge, 1975, p. 149).

In only one of the ten sites did the superintendent make the decision to adopt IGE; therefore, this conclusion is applicable in only one case (see Table 10). The superintendent of the district in which Davis School is located sought approval from the school board for his decision but did not include the principal and the teachers of Davis School in the decision to adopt.

> 4. Parents and the central office personnel were minimally involved in the adoption decision process (Goodridge, 1975, p. 149).

The data for our research demand that we discuss this conclusion as two separate items because the level of participation by the two groups--parents and central office personnel--was quite different. In all but two cases in our sample, parents were very minimally involved in the adoption of IGE so this part of the conclusion tends to hold. At Mercury and York schools, however, parent representatives actively participated in the decision to adopt IGE through their membership on the schools' Building Committees.

The second part of the conclusion which depicts central office involvement as minimal tends not to hold at our sites. In eight of the ten schools, central office personnel (in some cases assistant superintendents, in other cases curriculum coordinators) played important roles in the decision to adopt IGE for the schools in their district. Only at Rise and North schools where teachers and principals shared the decision was central office participation minimal.

> 5. School boards were not influential in the adoption of IGE, although it was always assumed that they gave the necessary formal approval (Goodridge, 1975, p. 149).

This conclusion of the Goodridge study was true in all ten sites in the Studies of Implementation research. While noen of the boards actually made the decision to adopt IGE in their district, all ten sanctioned the decisions of other school officials. Generally, formal approval was given by passage of a supporting resolution of the signing of a formal agreement to implement IGE with the State Department of Public Instruction and/or the Wisconsin Research and Development Center. Usually, formal board approval was granted prior to the implementation of IGE but in one school, Meadow, formal board approval was given approximately six years after its introduction in the school program. According to informants, board approval was granted at this late date in response to community pressure on the schools to innovate. School officials reportedly felt that the publicity generated by formal adoption of IGE in the district at that time would lessen community pressure.

Conclusions About Influential Factors in the Adoption Decision Process

> 1. Decision makers and non-decision makers agreed that individualization of instruction related to the IGE program was the major reason for the adoption of IGE (Goodridge, 1975, p. 149).

In asking respondents about the perceived advantages of IGE, we immediately discovered that the decision makers and non-decision makers often had divergent perceptions of the major reason for adopting the innovation. Therefore, in Table 11 we divided Goodridge's conclusion in two sections and indicated fit with our data for decision makers and non-decision makers. As Table 11 further shows, this conclusion was not applicable to the non-decision maker category at Lewis, Mercury, and York schools because these schools were not in existence at the time of adoption. Nor was this category applicable in the cases of Rise and North schools because teachers and principals were the decision makers. At Meadow School, no data were available from the non-decision-maker group on the major reason for adoptiong IGE.

As shown by the case histories, persons made of different status made the decision to adopt IGE at the various sites. Therefore, it is not only important to consider each school's reason for adopting but also who decided to adopt. In less than half the schools, individualized instruction was the major reason for adoption cited by the decision makers. At Rise and North schools the decision makers were teachers and principals; at Sawyer and Arrow schools the decision makers were central office personnel.

In three of the remaining six sites, individualized instruction was cited as an important reason for adoption but not as the major reason. At Lewis School, the principal (i.e., the decision maker) thought the multiunit organization was equally attractive. At Mercury School, the Building Committee listed individualized instruction as the fourth of six reasons for adopting IGE. And at Meadow School, central office personnel felt the flexible schedule afforded

Table 11

Fit Between the Studies of Implementation Adoption Data and Goodridge's Study of IGE Adoption: Decision Process

School	Conclusions About Influential Factors in the Adoption Decision Process				
	1[a]	2[b]	3[c]	4[d]	5[e]
Lewis	O;NA	O	O	--	O
Star	O;O	O	O	--	O
Arrow	T;O	O	T	--	O
Mercury	O;NA	O	O	--	O
Meadow	O;--	O	O	--	O
Sawyer	T;O	O	O	--	O
Rise	T;NA	O	T	--	O
North	T;NA	O	O	--	O
Davis	O;T	O	T	--	O
York	O;NA	O	O	--	O

Key. T = True O = Not True NA = Not Applicable

-- = Data Not Collected in this Area

Note: 1[a] = Decision maker said individualized instruction was the major reason for adoption; non-decision makers said individualized instruction was the major reason.

2[b] = Adoption for prestige or gain in funding were important reasons.

3[c] = Some respondents conceived of IGE as the same as WDRSD.

4[d] = The teachers were unaware of the seven components of IGE.

5[e] = Where money was involved, school boards wanted to participate in the decisions.

by IGE was equally attractive as individualized instruction. At Star School, individualized instruction played no role in adoption; IGE was adopted in order to provide an inner-city specialty school in compliance with the desegregation order. According to central office personnel, IGE was adopted at Davis School because it allowed for better staff utilization, teacher sharing, better inter-school communication, and non-gradedness. The reason for the adoption of IGE at York School was stated very generally and implied support for individualized instruction in only a very indirect way: "IGE characteristics are compatible with the concepts outlined in the Lakeside Public School's Capital Improvement Program, i.e., emphasis is placed on the personal worth of the individual, flexibility, and adaptability of methods and programs, and open communication."

Only one group of non-decision makers cited individualized instruction as the major reason for adoption--the teachers at Davis School. At Sawyer and Lewis schools, teachers cited the grouping arrangements of IGE as equally attractive as individualized instruction. At Star School, the principal, who did not participate in the decision to adopt IGE, supported the decision-maker's statement that IGE was adopted for Star School in order to create an inner-city specialty school.

> 2. The adoption of IGE for the sake of prestige and keeping up with current trends or for gain in funding were seen by many respondents as being important reasons for the adoption of IGE (Goodridge, 1975, p. 150).

Prestige or gain in funding were never cited as major reasons for adopting IGE. Apparently, prestige was not associated with IGE in the minds of school people and financial incentives were not made available to those willing to adopt the innovation.

3. A number of respondents conceived IGE as consisting mainly of the Wisconsin Design for Reading Skill Development and considered that IGE was adopted to utilize this reading program (Goodridge, 1975, p. 150).

In three of our research sites, IGE and WDRSD were perceived to be synonymous at the time of adoption. At Arrow, Rise, and Davis schools the implementation of IGE began with the use of WDRSD in one unit of the school and later spread to schoolwide use and the creation of the multiunit structure.

4. The responses of teachers in particular as to why IGE was adopted showed a lack of awareness of many of the seven components of the total IGE program (Goodridge, 1975, p. 150).

Since the schools in the research sample adopted IGE at various times over a nine year span and since there has been substantial staff turnover in several of the sites, data were not collected on this conclusion.

5. School boards were often prepared to let others decide about educational programs if no extra cost was involved. Where increased expenditure was required then the board wished to be involved in these decisions (Goodridge, 1975, p. 150).

Our data support the conclusion that some school districts agreed to spend more money to implement IGE than others. For example, some decided to remodel their school building and others decided to hire additional teacher aides. In spite of these different levels of expenditures, there did not seem to be any difference in the amount of involvement by the school boards. In all cases, the boards seemed to simply approve the decision or recommendation of its administrators. Thus, Goodridge's conclusion did not hold for our data.

Supplementary Conclusions

1. The most influential and successful change agents were shown to be practitioners from other IGE schools (Goodridge, 1975, p. 150).

In only one of the ten research sites--Arrow School--was the change agent who was responsible for the introduction of IGE an IGE practitioner. The assistant superintendent was an IGE principal and had a master's degree in IGE when she was hired into the district. At Mercury and York schools, the impetus for change was school district crowding and the need to build new schools. In the other seven sites the change agents were relative novices to IGE and learned of IGE through IGE courses at local universities or through awareness conferences sponsored by the Department of Public Instruction and Wisconsin Research Development Center (see Table 12).

2. Consultants generally provided information. IGE facilitators made presentations considered by teachers to be unreal and too idealistic and their credibility was often challenged (Goodridge, 1975, p. 150).

Table 12

Fit Between the Studies of Implementation Adoption Data and Goodridge's Study of IGE Adoption: Supplementary Conclusions

School	Supplementary Conclusions 1[a]	2[b]	3[c]	4[d]	5[e]	6[f]
Lewis	O	--	T	--	--	--
Star	O	--	O	--	--	--
Arrow	T	--	O	--	--	--
Mercury	NA	--	O	--	--	--
Meadow	O	--	T	--	--	--
Sawyer	O	--	T	--	--	--
Rise	O	--	T	--	--	--
North	O	--	T	--	--	--
Davis	O	--	O	--	--	--
York	NA	--	O	--	--	--

Key. T = True O = Not True NA = Not Applicable

-- = Data Not Collected in This Area

Note: 1[a] = Most influential change agents were other IGE practitioners.

2[b] = IGE facilitators were seen as too idealistic.

3[c] = The decision to adopt IGE was shared only between two individuals or groups.

4[d] = Teachers were not offered the opportunity to transfer if they did not want IGE.

5[e] = Decision makers felt that they had sufficient information to make the adoption decision.

6[f] = Some teachers agreed to adopt IGE but made no commitment to change.

This conclusion was not considered to be germane to our study of adoption. Therefore, data were not collected on this conclusion.

> 3. Decision making concerning adoption was shared only between two individuals or groups in the school system, i.e., principal and staff or superintendent and school board. The adoption decision was nowhere shared between board members, central office, superintendent, principal, staff, and parents (Goodridge, 1975, p. 150).

This conclusion held in half of the ten sites. If the conclusion had read that the decision had either been made by one individual (group) or no more than two groups, then it would have been true in eight of the ten cases. Indeed, at Arrow and Davis schools, the decision was made by a single individual--the assistant superintendent in the former case and the superintendent in the latter case. At Star School, the decision was made a single level of the school system hierarchy--a central office management team. York and Mercury schools represent exceptions to this conclusion because both schools adopted IGE as a result of decisions by their building committees which were made up of administrators, teachers, central office people, and parents.

> 4. Generally, teachers were not offered the opportunity to transfer to another school if they did not desire involvement in IGE (Goodridge, 1975, p. 150).

While data were not directly collected on this variable, some findings emerged serendipitously. At one school, teachers reported that they were offered a transfer after the principal announced the school would become IGE but that the offer was "not realistic" because there were no openings in the district to which to transfer. At another school, teachers reported that they were not asked to participate--"we didn't volunteer, we were drafted. . . whoever happened to be here. . . . You're here and you're part of the program whether you like it or you don't like it. . .we were told, you do it this way and that's it. . . ." At the three new schools--Lewis, Mercury, and York--teachers knew prior to their hiring that they would be going into IGE schools. While no overall conclusion can be made about the transfer issue, we can say that the data from existing schools suggest that transfers were not made available in some sites. There was no data which indicated that transfers were readily available in any others.

> 5. When the adoption decision was made, identified decision makers considered that they had sufficient information to make this decision (Goodridge, 1975, p. 150).

Data were not collected on this conclusion.

> 6. Some identified decision makers, particularly teachers, agreed to the adoption of IGE but made no commitment to adapt their own instructional methods or behavior to the requirements of the new program as reflected in the seven components of IGE (Goodridge, 1975, p. 150).

While no questions were asked which directly pertained to this conclusion, data were obtained through other items. For Lewis, Mercury, and York schools, this conclusion is, of course, not applicable. All teachers hired into these new schools were fully aware that they would be IGE schools and indicated their commitment by applying to teach there. But, at the remaining seven schools full commitment cannot be assumed. At two of the seven schools, a vote was taken but the vote was not unanimous at either site. At the remaining five schools, teachers did not have an opportunity to approve the decision to adopt IGE and their comments suggest that not all teachers willingly changed their behavior. At Star School, where adoption of IGE was mandated by desegregation, two years after implementation teachers indicated that they did not know what they were supposed to do differently now that they were an IGE school. In fact, teachers said they agreed to participate in the research in hope of finding out what IGE was! At Arrow School where WDRSD and IGE were viewed as synonymous, one unit admitted that they did not use the reading program at all the first year and only about six weeks of the second. At Meadow and Davis schools some teachers felt forced into IGE. At the present time, IGE is in use in only part of Meadow School. One unit at Davis has reverted to ability grouping for certain subjects and departmentalization for others. At Sawyer School, some resistance to IGE was noted and age-graded homerooms and certain subjects have continued to exist. The data suggest strongly that while IGE was adopted in these sites, many non-IGE practices continue. One can hypothesize that these practices continue to exist because teachers who were not permitted to give approval to the decision to adopt did not commit themselves to change.

In comparing our findings with those of Goodridge, certain inconsistencies occur. With respect to conclusions about decision makers, our data do not support the conclusion that principals were the major decision makers and that teachers often shared in making the decision to adopt IGE. Our data suggest that the introduction of IGE into a school was generally the result of a decision made at the administrative level without teacher input. Frequently central office personnel were the major decision makers. Our data further indicate that the decision to adopt was almost always made either by an individual or by no more than two individuals or groups. Rarely was the adoption decision shared between more than two levels. Parents and school boards were very minimally involved in the decision.

Some resistance to the adoption of the innovation was noted. Inability of unwilling teachers to transfer to non-IGE schools seems to have contributed to the continuation of certain non-IGE practices such as ability grouping and departmentalization in the IGE schools.

With respect to the influential factors surrounding adoption, our data again conflict with Goodridge's findings. While he found that individualized instruction was the major reason given by decision and non-decision makers for the adoption of IGE, only about half the decision makers and almost none of the non-decision makers in our study cited this reason. Flexible grouping, the reading program WDRSD, and the organizational structure of IGE were frequently cited advantages in our study. Prestige and funding, important factors for Goodridge, played virtually no role in adoption according to our respondents.

Finally, with respect to supplementary factors, our data suggest that IGE practitioners were generally not the key agents for adoption in our sites. Rather, individuals already employed by the school districts, who were relative novices to IGE, became agents for change. Through contacts with the innovation in university courses or at IGE awareness workshops, district people become aware of the innovation and brought it back to their school system.

An Alternative Conception of the Adoption Process

The analysis of the adoption data in the 13 schools indicate that the 6 change models are inadequate for describing the adoption experiences at our research sites. First, the models are not useful when the assumption of an active user system is violated. The models simply do not allow for "top-down" decisions for adoption. As has been shown in the case histories, 10 of the 13 user systems did not even minimally participate in the decision to adopt.

Second, the models do not account for an external stimulus or impetus for change. The models assume planned, incremental change in response to a problem identified by the user system. The data do not support an orderly, gradual progression toward change. In eight of the ten Wisconsin sites, the presence of a major external event such as the fire at Lewis School or the desegregation order at Star School initiated adoption decisions.

The models also depict the change process as involving a linear sequence of events. Our data suggest that the adoption process, as defined by the Studies of Implementation work group, includes three components which interact dynamically over time. These components, which include adoption context, legitimization, and user preparation, will be explicated in the following discussion.

An alternative conception of the adoption process must account for the above mentioned shortcomings of the six change models. Assumptions which were not verified in the real experience of the people in the 13 sites must not become foundations of an alternative conception. Rather, a reconceptualization of the adoption process must evolve from the data themselves; the data should be the source of the key elements of the conceptualization.

Components of an Alternative Conceptualization of the Adoption Process

Adoption Context

The first component which is integral to an alternative conceptualization of the adoption process has been identified as the adoption context. This context is composed of those activities, experiences, or occurrences which contribute to or impede the adoption process in an existing school district. These activities can be initiated by and impact on key actors in the adoption process. The actors can be members of two groups: the user system and the resource system. Because the nature of the IPM innovation necessarily implies an instructional focus, the resource system has been defined as anyone external to the teaching unit, e.g., principals, central office staff, and school board members. The context per se has no beginning or ending point; rather, it is those activities and interactions that occur over the entire adoption process.

Adoption context events may be of two types: (a) external events, which produce a sudden and dramatic need for restructuring of the existing institution; and (b) internal and incremental events, which allow for natural and evolutionary adaptations to be made in the existing institution. Each event has the potential to contribute to or hinder the school system's potential for adopting the innovation. Our data suggest that these events cannot be viewed in isolation; rather, the actors exert influence and interact within an extremely complex and multi-dimensional framework. In addition, our data suggest that the same adoption context events are perceived differently according to user and resource system role status, and that they therefore may exert differential impact on these two role groups.

At each site events internal to the system resulted in the adoption of the innovation. At the same time the data suggest that these internal events are greatly influenced by events external to the system. The presence of important external events is generally omitted from many conceptualizations of the change process. Our data specifically suggest that the impact of external events may have different effects on the adoption process. They may influence the sequence of events in the adoption context dimension, or they may affect behavior of either or both the user and resource groups, or they may dictate the speed at which a solution is reached.

For example, at Lewis School internal events leading in the direction of individualizing instruction had been occurring for several years. A number of inservices had been held, and one plan for establishing an IGE school had been formulated. But it was the fire at Lewis School which led to the actual adoption of IGE. The effect on the resource system was the immediate need to provide adequate facilities for the displaced students and teachers. The user system was also affected. Teachers were dispersed throughout the district until adequate facilities could be provided. The fire thus served as a catalyst and accelerated the change process in the district. IGE, which had been a topic of discussion for a long time, quickly became the instructional program of the newly constructed Lewis School.

At Star School, an external event was also the impetus for the adoption of IGE. In this instance, a federal court order imposed on the district demanded the formulation of a plan to desegregate the school district by a specific date. The primary impact of this external event was felt by the resource system, i.e., the central office. In the development of the desegregation plan, Star School an inner-city, predominantly minority school was paired with a majority school which had been implementing IGE for several years. In order to increase the likelihood that students would be exchanged between the two schools, Star School was also designated as an IGE school. This decision was made by the central office, and the user system was not involved at any point in the decision-making process.

In the cases of Mercury, York, Sawyer, and Meadow schools, conditions external to the school, namely, changing enrollment patterns, caused the district to make adjustments in the schools' programs. The impact of the enrollment shifts was dealt with at the central office level, and in each instance the response involved the adoption of IGE. In two schools new buildings were constructed to house IGE programs; in the other two sites, IGE was introduced at the same time that building additions were completed.

Our data, then, have resulted in the conceptualization of context as any event which contributes to or impedes the adoption process. Context events may occur either within the system (internal or incremental events) or outside the system (external events). Also context events may be perceived by and impact differently on members of the resource and user systems.

Legitimization

A second key element in the alternative adoption conceptualization of the adoption process is legitimization. Since the innovation was adopted by each of the 13 sites, it was, by definition, "legitimized" by the school district. However, the process by which this legitimization occurred varied widely across the districts. Our data suggest that the user and resource systems assumed one of the following positions: (a) facilitative, in which the user and/or resource system member(s) actively solicited adoption of the innovation; or (b) permissive, in which the user and/or resource system member(s) assumed a passive posture, that is, they permitted adoption to occur without overtly helping or hindering the process. This permissive position implies an implicit sanctioning of the actions of others as they relate to the adoption of the innovation. The data also suggest that each role group, i.e., central office administrators, principals, and teachers, has specific but varying organizational means by which to legitimize the innovation, such as by vote, by decision, or by decree.

In 10 of the 13 sites, legitimization occurred solely by decision of the resource system; in the other three sites, the decision was shared with the user system by means of a vote. In each site, the actions of either the user or resource groups were legitimized by the school board. When not involved in the decision, the user system assumed a permissive role. In the case of Mercury, York, Davis, Arrow, and Lewis schools, teachers passively sanctioned the activities of the resource system. At Star, Sawyer, Meadow, Ware, and Miller schools, teachers were totally unaware of the efforts of the resource system.

At North and Canal schools, both the resource and user systems played a facilitative role in legitimization. In these two cases, interaction between the two systems was directed toward seeking a decision to either accept or reject the innovation. In each instance, both the user and resource systems voted to adopt the IPM.

At Rise School, the user system assumed a facilitative role. That is, the events leading to the adoption of IGE were initiated and directed by the user system. A vote was taken among teachers to either accept or reject the innovation. The resource system responded in a permissive mode by simply sanctioning the efforts of the user group.

Thus, the data lead to a conceptualization of legitimization which suggests that

1. Legitimization of an innovation may occur at several levels within a school district and that while legitimization in some form always occurred at the level of the resource system, it only occasionally occurred at the user level.
2. The user and resource systems may play either facilitative or permissive roles in legitimization.
3. There are a variety of organizational means by which the resource and user systems can legitimate the adoption of the innovation.

Preparation for Use

The third key element of the alternative conceptualization has been termed preparation for use. Preparation for use involves two dimensions: providing the user system with the necessary technical resources (i.e., time, materials, staff, and facilities) demanded for implementation of the innovation and providing inservice training to the user group. The data suggest that within this second dimension there are multiple inservice activities which occur during the entire adoption process. Pre-decision activities occur before the adoption decision and are designed to influence users to adopt the innovation; post-decision activities occur after the adoption decision and are designed to prepare teachers for use of the innovation.

At Rise School, for example, teachers attended a university course on IGE prior to the decision to adopt. As a result of their class participation, they sought the principal's support. After the teachers had decided jointly with their principal to implement IGE, they participated in additional IGE inservices within their school building to prepare for the use of the innovation.

An important component of this alternative conceptualization of the adoption process is the dynamic nature of the interaction between the three dimensions--adoption context, legitimization, and preparation for use. Our data suggest that these dimensions are not independent but rather highly interactive. The dynamics of the interplay among and between these three dimensions are the heart of the adoption process. Put simply, the adoption process is the result of the interaction between these three dimensions, and can assume a multiplicity of sequences each having a differing impact upon the adoption sequence of an innovation. Two examples which demonstrate the dynamics of the interplay between the three elements and highlight the variety of sequences among the elements are presented in the next section.

The Adoption Process at Rise and Meadow Schools

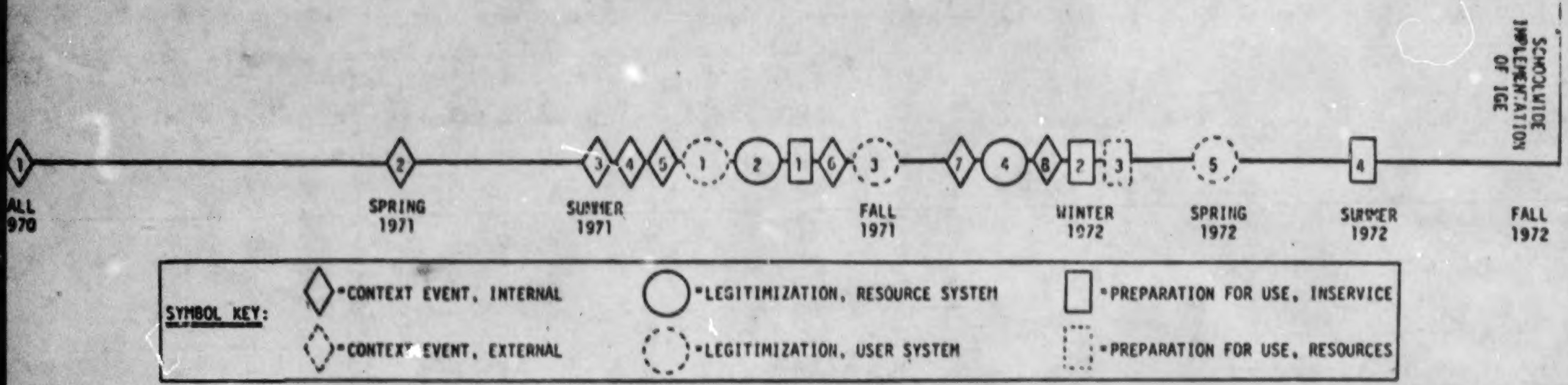
The adoption histories at Rise and Meadow schools differed greatly from one another. At Rise School, several teachers sensed a need to improve the school's instructional program and became aware of the innovation (the IPM) through a course at the local university. The teachers (user system) examined the feasibility of the IPM for their own situation and decided they wanted to try the innovation. With the consent and support of their principal, the primary teachers embarked on a one year trial of the IPM. At the end of the year, the entire school staff and principal decided to implement the innovation schoolwide.

At Meadow School, teachers had no awareness of an instructional need in their school and no input into the decision to adopt the innovation. The superintendent and the principal made the adoption decision and their decision was simply announced to the staff. With little preparation or pre-planning, use of the innovation was begun just months after the decision to adopt was announced. Teachers at Meadow School report being unenthusiastic about implementation but resigned to a situation over which they felt they had no control.

Using the three key elements suggested in the alternative conceptualization of the change process, context events, legitimization, and preparation for use, the adoption histories of these two schools can be tracked. Figures 9 and 10 represented the adoption histories of the two sites in some detail. Obviously, not all the events that contributed to the adoption of the IPM can be included on the diagrams. However, the key events as identified by those administrators and teachers present at the time of adoption have been included.

Although the events in Figures 9 and 10 are placed along a timeline, the adoption process should not be construed to be linear. By using varying symbols for context, legitimization,and preparation events, it is possible to demonstrate the cycling of the elements as they occur. Placement of a symbol at a particular point does not necessarily indicate that the event starts and ends at one given point in time. Rather, placement of a symbol represents the beginning of the event which, in reality, may continue for a period of time. For example, context event seven (◇7) in Figure 9 represents the primary teachers trial of the IPM. The trial began in the fall of 1971 and continued throughout the school year.

Figure 9 demonstrates several interesting points about the adoption history of Rise School. First, the events leading up to the implementation of the IPM at Rise spanned a two-year period with the majority of events occurring in rapid succession over the later year and a half. Second, all the context events were of an internal, incre-


SCHOOLWIDE IMPLEMENTATION OF IGE
ALL 970
SPRING 1971
SUMMER 1971
FALL 1971
WINTER 1972
SPRING 1972
SUMMER 1972
FALL 1972
SYMBOL KEY:
◇ = CONTEXT EVENT, INTERNAL
◇ = CONTEXT EVENT, EXTERNAL
○ = LEGITIMIZATION, RESOURCE SYSTEM
◌ = LEGITIMIZATION, USER SYSTEM
□ = PREPARATION FOR USE, INSERVICE
⬚ = PREPARATION FOR USE, RESOURCES

KEY ADOPTION:

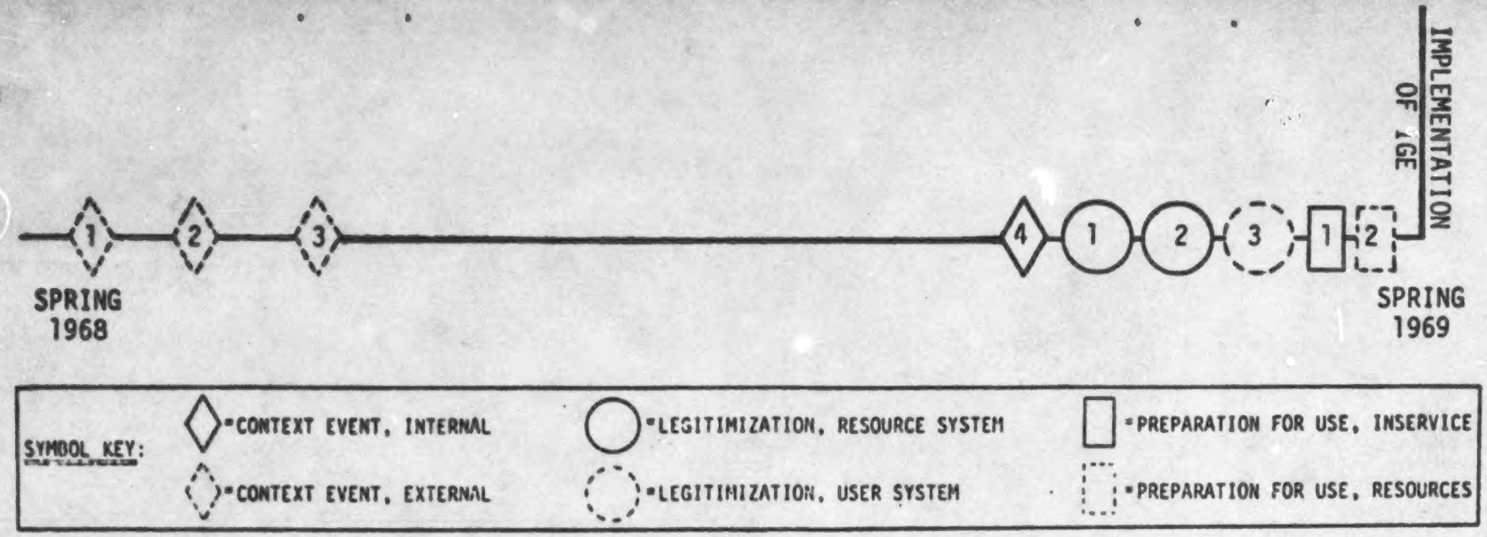
◇1 = IGE Institute established at UW-Tall Pines.
◇2 = Primary teachers dissatisfied with instructional program.
◇3 = Primary teachers attend UW-Tall Pines class on individualizing instruction (IGE).
◇4 = Primary teachers invited principal to attend some class sessions.
◇5 = LEAP League established.
◌1 = Primary teachers decide they want to try IGE.
○2 = Principal approves teachers' decision.
□1 = Principal and primary teachers plan for trial.
◇6 = Principal and primary teachers meet with school staff to discuss their interest in IGE.
◌3 = Staff at school approves the trial for primary teachers.
◇7 = Trial period begins--primary unit tries IGE.
○4 = School Board signs IGE contract with R & D Center and the State Department of Public Instruction.
◇8 = IGE implemented in five other district schools.
□2 = Teachers attend IGE workshops.
⬚3 = Teachers visit other IGE schools.
◌5 = Staff votes to implement IGE schoolwide.
□4 = Teachers attend inservices to prepare for implementation.

Figure 9. Key adoption events at rise school.

mental nature which demonstrates the gradualness of change at Rise School. Third, legitimization of the adoption decision occurred in both the User and Resource Systems but began with the User System. Fourth, preparation for use not only included the provision of inservice for teachers but also the allocation of physical resources in anticipation of implementation.

Overall, Figure 9 demonstrates that the three elements in the alternative conceptualization of the adoption process rotated over the two-year period. That is, context events occurred throughout the period, not just during the initial time span; legitimization reoccurred frequently throughout the process as did preparation activities. The 17 events which comprised the adoption history of Rise School occurred in the following pattern: 5 context (C)--2 legitimization (L)--1 preparation (P)--1C--1L--1C--1L--1C--2P--1L--1P. In sum, Figure 9 represents the adoption process at Rise School as being gradual, user-centered, and interactive. The three key elements cycle throughout the process.

The adoption history at Meadow School, as represented in Figure 10, spanned a one-year period. At the start of the year, several dramatic context events triggered by the decision to close two schools stimulated the consideration of an educational alterantive. For more than half a year, no key events which contributed to the adoption of the innovation were reported to have occurred. Activity began, however, when two district administrators enrolled in a university IGE course as the time approached to open the new addition.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2
IMPLEMENTATION OF IGE
SPRING 1968
SPRING 1969
SYMBOL KEY:
=CONTEXT EVENT, INTERNAL
=CONTEXT EVENT, EXTERNAL
=LEGITIMIZATION, RESOURCE SYSTEM
=LEGITIMIZATION, USER SYSTEM
=PREPARATION FOR USE, INSERVICE
=PREPARATION FOR USE, RESOURCES

KEY ADOPTION:

◇1 = School Board decides to close two outlying district schools.

◇2 = School Board decides to build addition to Meadow School to accommodate influx of students from closed schools.

◇3 = Discussion begins about the nature of the instructional program to be housed in the new addition.

◆4 = Superintendent and principal take IGE course at UW-Chevron.

○1 = Principal and superintendent agree that IGE should be implemented in the new addition of Meadow School.

○2 = Principal announces decision to implement IGE to school staff.

◌3 = Teachers permissive of adoption; feel "drafted."

▯1 = Inservices on IGE conducted by principal for teachers.

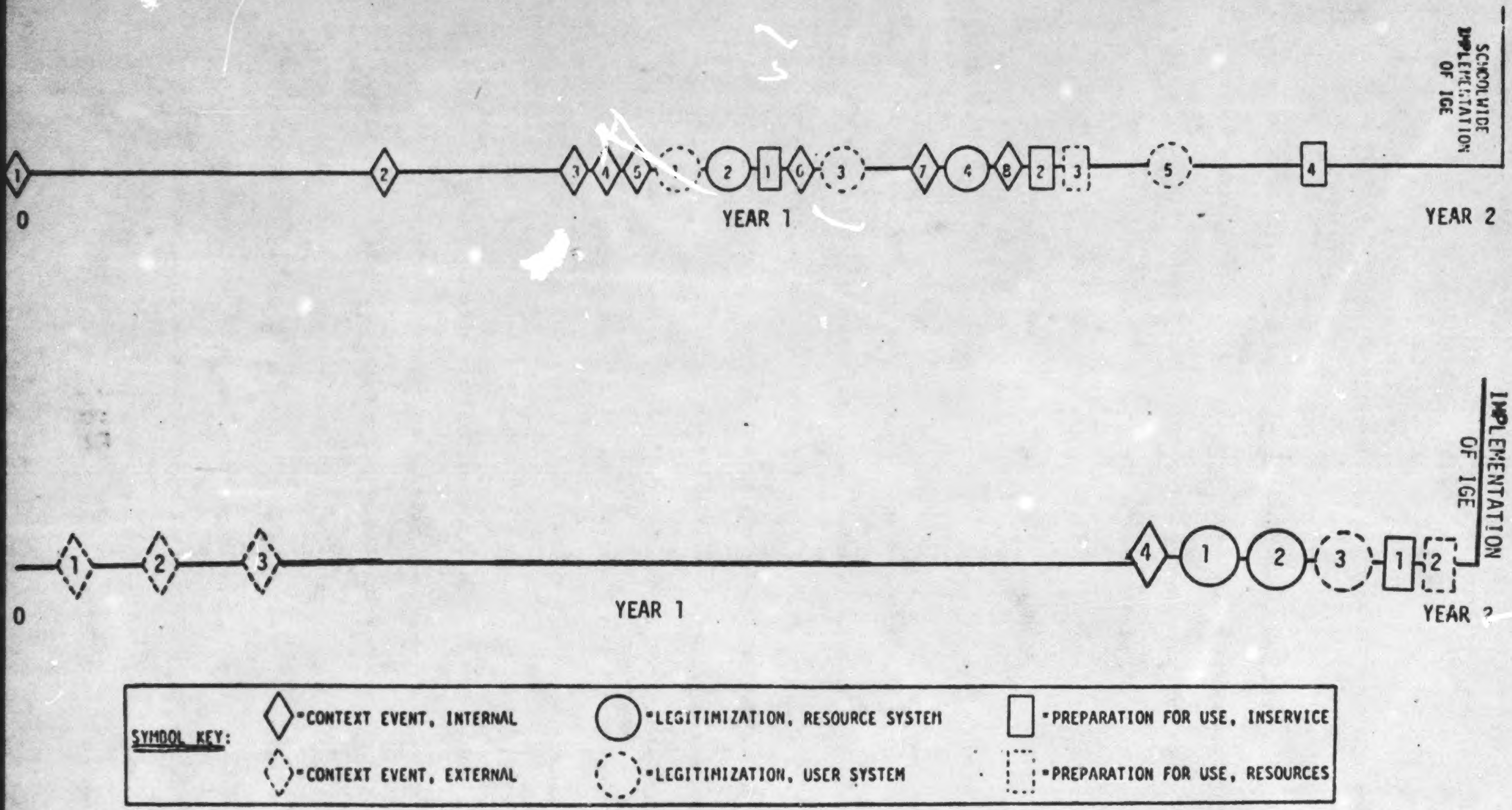
⬚2 = Building addition completed; materials purchased.

Figure 10. Key adoption events at meadow school.

As shown in Figure 10, legitimization occurred predominately at the resource system level. The teachers (i.e., user system) were only involved as they reacted to the decision made by their organizational superiors. Further, as seen in Figure 10, preparation for use of the innovation was minimal and occurred just prior to actual implementation.

In viewing the adoption history of Meadow School from a broader perspective, it is clear that there was little interaction between the three key elements of the alternative conceptualization. All context events began before any legitimization activity started, and all preparation began after the other two types of events were initiated. Thus, the pattern at Meadow School was: 4 context events--3 legitimization--2 preparation. In sum, Figure 10 represents the adoption history at Meadow School as being initiated "top-down" and the result of an external and dramatic event. User participation is depicted as minimal, and preparation for use sparse.

Figure 11 depicts the two adoption histories side-by-side. The combined figures demonstrates clearly the differences between the two schools in the timing of events, the level of activity and the sequence in which the different elements occurred. Figure 11 further demonstrates the utility of the alternative conceptualization of the adoption process. Though the adoption histories of the two sites differ considerably in terms of the role the user systems played, the stimuli for change, the speed at which change occurred, and the sequence of adoption events, the alternative conceptualization was able to depict the histories meaningfully.



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YEAR 1
YEAR 2
SCHOOLWIDE IMPLEMENTATION OF IGE
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2
0
YEAR 1
YEAR 2
IMPLEMENTATION OF IGE
SYMBOL KEY:
=CONTEXT EVENT, INTERNAL
=CONTEXT EVENT, EXTERNAL
=LEGITIMIZATION, RESOURCE SYSTEM
=LEGITIMIZATION, USER SYSTEM
=PREPARATION FOR USE, INSERVICE
=PREPARATION FOR USE, RESOURCES

Figure 11. A comparison of the sequence and timing of key adoption events at rise and meadow schools.

Quite different adoption patterns emerged from the two histories using the alternative conceptualization.

A logical next step for continued research would be to document the degree of implementation of the innovation in each of the sites and compare the degree of implementation with the adoption patterns. Establishing the connection between the adoption and implementation is of great interest from a research standpoint but is beyond the scope of the present research project.

Findings and Implications

The purpose of the research being conducted by the Studies of Implementation is to identify and interrelate those factors which influence the planned change process in schools. During the first year of this 3-year longitudinal study, data were collected related to the research question: What factors affect the decision to adopt an innovation? Case histories describing the adoption experiences in 13 sites were written after data were collected through interviews and document analysis. From the analysis of the adoption data, it was noticed that certain key elements were common across sites. There were different patterns or ways in which the key elements were related in the varying sites. An alternative conceptualization of the adoption process was developed using these key elements. One obvious research implication of these diverse patterns of adoption is the need to study the relationship between the various adoption patterns and subsequent implementation experiences. Is there a connection between certain adoption patterns and varying levels of use of an innovation?

The adoption data further revealed different configurations in the A VICTORY factors. Some factors which seemed key in certain sites appeared to be relatively unimportant in other sites. Is there a relationship between the degree of implementation of an innovation and a particular configuration of the A VICTORY factors? This question merits further study.

The data on adoption raised yet another interesting issue. Although teachers rarely participated in the adoption decision and while resistance to adoption was noted, there was no organized opposition to adoption in any of the 13 sites. What is the meaning of this lack of opposition? At least three possibilities exist. Perhaps teachers feel powerless to oppose a decision made at a higher level of the hierarchy and, though dissatisfied, acquiesce. Or perhaps, teachers do not oppose instructional innovations because they, as implementors, have the power to subvert the use of the innovation and, in the confines of their classroom, need not change their teaching behavior at all. Or conceivably, the teachers were simply apathetic about both the decision and the innovation. Further research into the nature of teacher response to "top-down" adoption decisions could shed light on the lack of manifest opposition noted in our sites.

Finally, the adoption data suggested that perceptions of key events and advantages varied according to the statue of the respondent. At times we felt as though there were several adoption histories at a given site rather than only one. It would be interesting and useful to explore in greater detail the varying perspectives of individuals by status. Research on this issue as well as on the three mentioned previously could enhance the understanding of the change process in schools and have implications for practitioners.

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APPENDIX A

History Interview

APPENDIX A

HISTORY INTERVIEW

Individual Code __________ School Code ________ Date ______________________

Position ________________ Number of Years in Position ________________

Former positions in this school system: Dates:

___________________________________ ___________________________

___________________________________ ___________________________

___________________________________ ___________________________

____ 1. How did you first become aware of IGE?

___ school principal
___ other principal(s)
___ other teacher(s)
___ district personnel
___ conference, workshops
___ publications
___ college classes
___ visits to IGE schools

____ 2. What was attractive to you about IGE?

___ Positive ___ Negative

____ 3. Did the interest in IGE arise out of any issue or ongoing debate?

___ What was school like before IGE? Any problems or dissatisfaction?

____ 4. How was the decision made for your school to go IGE?

___ Who was involved? ___ What was the process?

____ 5. What factors were influential in deciding to adopt IGE?

____ 6. How did you get started in IGE?

What persons or agenices helped you get started?

___ R&D Center
___ /I/D/E/A/
___ State Department
____ Local college or university--which?
____
____ District personnel
____ Other school personnel
____ SPC
____ RICC/League/Hub
____ SICC
____ AIGE
____ Parents
____ Students

____ 7. During the implementation process, what persons or agencies helped you?

___ R&D Center	___ District personnel
___ /I/D/E/A/	___ Other school personnel
___ State Department	___ SPC
___ CESA	___ RICC/League/Hub
___ Local college or univeristy--which?	___ SICC
______________________________	___ AIGE
	___ Parents
	___ Students

____ 8. Were costs incurred during implementation?

___ Amount $__________
___ Source

  ___ School
  ___ District
  ___ State
  ___ Federal
  ___ Others (please specify ______________________________)

____ 9. Did the implementation of IGE proceed gradually (e.g., IPM in one area only) or all at once?

Explain:

____10. What were the major problems that you had to overcome in implementing IGE?

____11. Describe the physical layout of your school.

___ Has the way in which you use the space changed since you adopted IGE?

____12. Has the changeover to IGE affected who you interact with?

___ Do you plan with the same people you used to plan with?

___ Do you teach with the same people you used to teach with?

____13. Is there anyone you can think of who was particularly influencial in deciding to adop IGE?

___ Helpful ___ Hindering

____14. Is there anyone you can think of who was particularly influential in implementing IGE?

___ Helpful ___ Hindering

APPENDIX B

Format for Drafting Adoption Histories

APPENDIX B

INTRODUCTION

The history format described on these pages is designed to (1) help you organize the history data and (2) provide a framework for combining the data for all the research sites. The format has five parts:

I. Tallies
II. Timeline
III. Narration
IV. Interpretation
V. Incomplete Data

A complete description of each of the five parts is attached. When you prepare your history, please organize the data into the five suggested parts. Ask Jackie to type the history for you and make six copies. These are due February 22, 1979. Include as much information as you have.

I. TALLY SHEET INSTRUCTIONS

The following is the general guidelines to be used for completing the tally sheets that will be included to the site histories.

A. List the number and status of people interviewed, e.g., two teachers, currently on staff; one teacher, retired; one principal; one superintendent equals a total of four.

B. List the number of ways people became aware of IGE (people may mention more than one source).

___school principal
___other principal(s)
___other teacher(s)
___district personnel
___conference,workshops
___publications
___college classes
___visits to IGE schools

C. List the person or person identified as having made the decision to adopt IGE, e.g., superintendent or teachers, etc.

D. List the factors that influenced the decision, e.g.,

1 the newness
2 individualization
etc.
to adopt
categorize the responses (people may mention more than factor)

E. List individuals and agencies that assisted in the implementation and indicate number of times mentioned (people may mention more than one person, etc.),e.g.,

___R & D Center
___/I/D/E/A/
___State Department
___Local college or university--which?
____
___District personnel
___Other school personnel
___SPC
___RICC/League/HUB
___SICC
___AIGE
___Parents
___Students

F. List the activities and frequency of the activities used during implementation.

___inservices/workshops
___courses
___independent reading
___sharing with other teachers
___other (specify)

G. Costs--list approximate costs, who supplied the money and who gave you the information, e.g., $2,500 from Title IVC according to superintendent.

H. The rate of implementation of IGE and the number of times that rate was indicated.

3 very gradually (e.g., IPM or 1 unit at a time)
2 gradually (2 IPMs or 2 units at a time)
0 rapidly (3 IPMs or 3 units at a time)
0 all at once (total program or school)

I. Categorize the problems of implementation and list the frequency with which the problems were mentioned, e.g.,

2 teachers resistance
2 not enough materials
1 building constraints

J. List the status (and names) of people who were influential in the adoption of IGE and the frequency with which they were mentioned, e.g.,

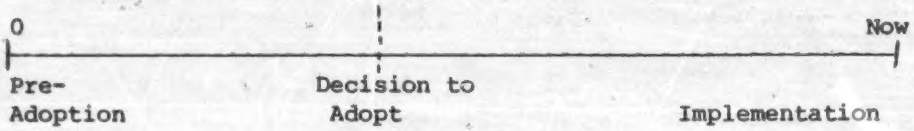
5 assistant superintendent (name)
1 principal (name)
___ teacher (name)
___ teacher (name)

K. List the status (and name) of people who were influential in the implementation of IGE and the frequency with which they were mentioned, e.g.,

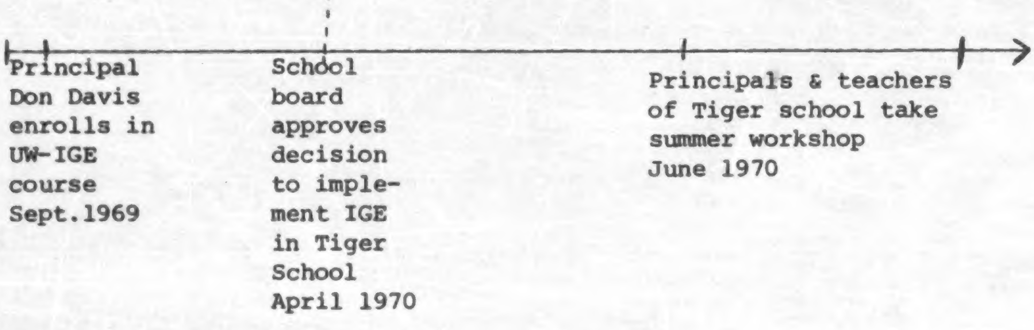
3 assistant superintendent (name)
2 IGE facilitator, DPI (name)
etc.

II. Timeline Instructions

Construct a timeline of the critical events surrouding the adoption and initial implementation of the innovation (IGE and/or DMP, etc.). Visualize the timeline as having two segments and being separated by a line when the discussion to adopt the innovation was made. For example:


0
Now
Pre-Adoption
Decision to Adopt
Implementation

When placing the critical events on the timeline, be sure to record the substance of the event, who was involved and when it occurred. Be as specific as possible.


Principal Don Davis enrolls in UW-IGE course Sept.1969
School board approves decision to implement IGE in Tiger School April 1970
Principals & teachers of Tiger school take summer workshop June 1970

III. Narration

The narrative section of the site history has three parts:

A. Setting (pre-adoption)
B. Adoption process (decision to adopt)
C. Implementation process

This section is simply a description of the data recovered from each site. It is not an interpretation of the data.

A. Setting

1. What the school was like before adoption.
    a. architecture use of space
    b. organizational arrangements (departmental, traditional, etc.)
    c. grade organization
2. District information.
    a. organizational structure
    b. number of schools (K-12)
3. Ongoing issues or debates within the school and/or district.
4. Awareness of innovation.
    a. how
    b. who
    c. when
5. Perceived advantages of the innovation prior to adoption (be specific).
6. Perceived disadvntages of the innovation prior to adoption (be specific).

B. Adoption Process

1. What individuals are influencial in the decision to adopt the innovation (specify) name and role?
2. How was decision to adopt the innovation made and by whom?
3. What factors influenced the decision to adopt the innovation?

C. Implementation Process

1. What individuals were influencial in the implementation of the innovation (be specific)?
2. What activities were involved in the implementation of the innovation?
3. Describe the involvement of parents in the implementation process (if any)?
4. What were the costs involved in the implementation of the innovation?
    a. how much
    b. what for
    c. funding source

5. Describe the changes in use of facilities of any.

6. Describe the rate of implementation (gradual to complete).

7. What problems were encountered during the implementation process?

8. Describe the changes in personal interaction pattern with the building.

IV. Interpretation

This is an analysis of the major factors, influences and key events leading to the adoption and implementation of the innovation. This analysis uses as its source of data, that which is reported in the narration section of the history (see Section III).

V. Incomplete Data

This section contains two parts:

A. Missing Data
B. Discrepant Data

The purpose of this section is to identify incongrueties and gaps in the data.

A. Missing Data

1. What is missing?

2. What source must be located to obtain the data?

B. Discrepant Data

1. Site nature of the discrepancy.
2. Report source of the discrepant data.
3. Reason for lack of resolution.
4. Suggestions for reporting discrepant data.

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11/79